



precision scale models

Web: www.distinctivedisplays.com

Att: Larry Mertz

Distinctive Displays

1338 Moorhead Dr.

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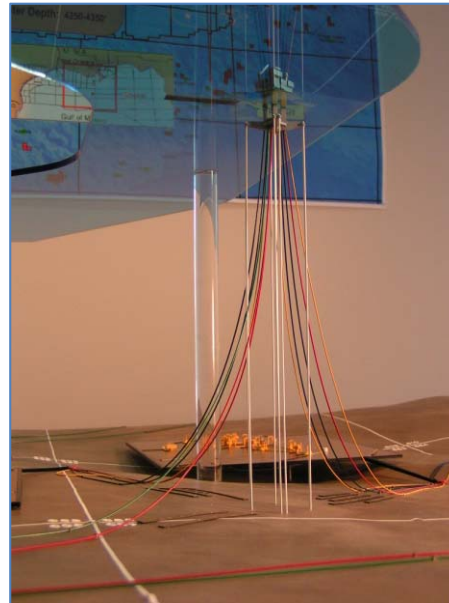
Shop: 713-932-8807

Office: 713-306-9111

SUBSEA / SUBSURFACE MODELS



MAD DOG SPAR MODEL



**SHENZI FIELD
DEVELOPMENT MODEL**



**SUBSURFACE INJECTION
WELL MODEL**



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MAD DOG SPAR



Client: BHP BILLITON

Scale: Varies

Model Size: 33" Dia. X 29"h

Delivery Time: 8 Weeks



bhp oilliton



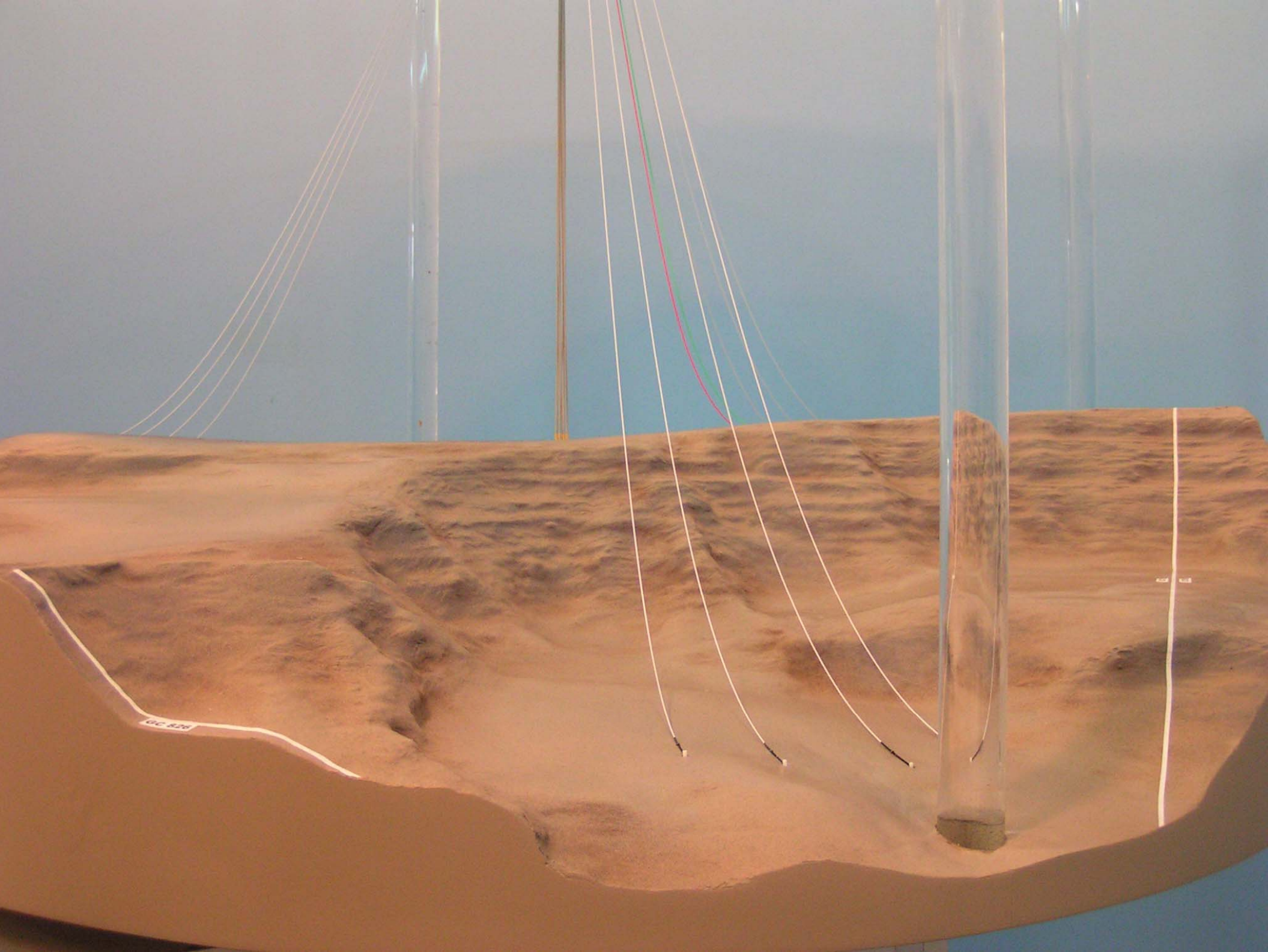
bhp billiton

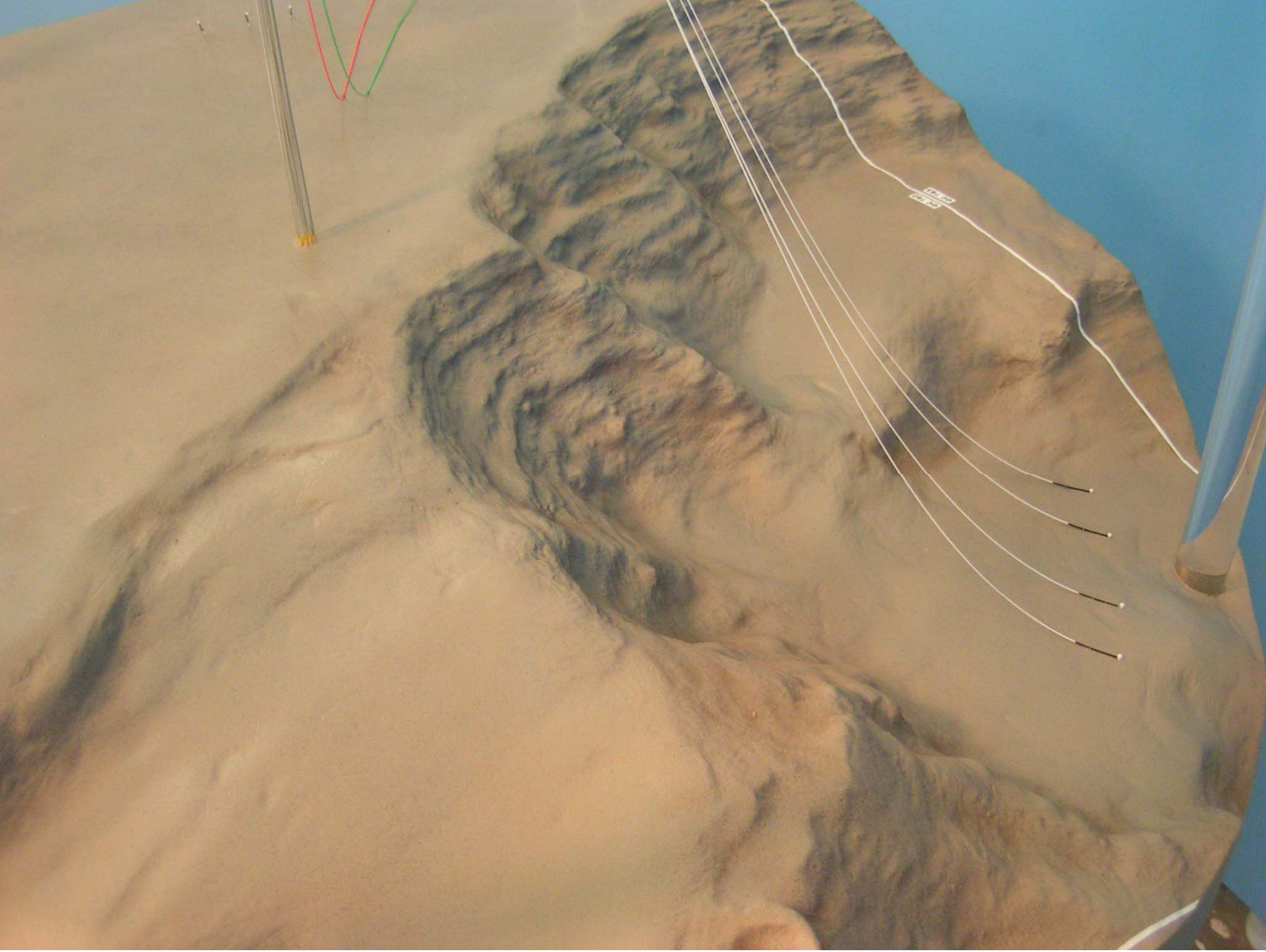


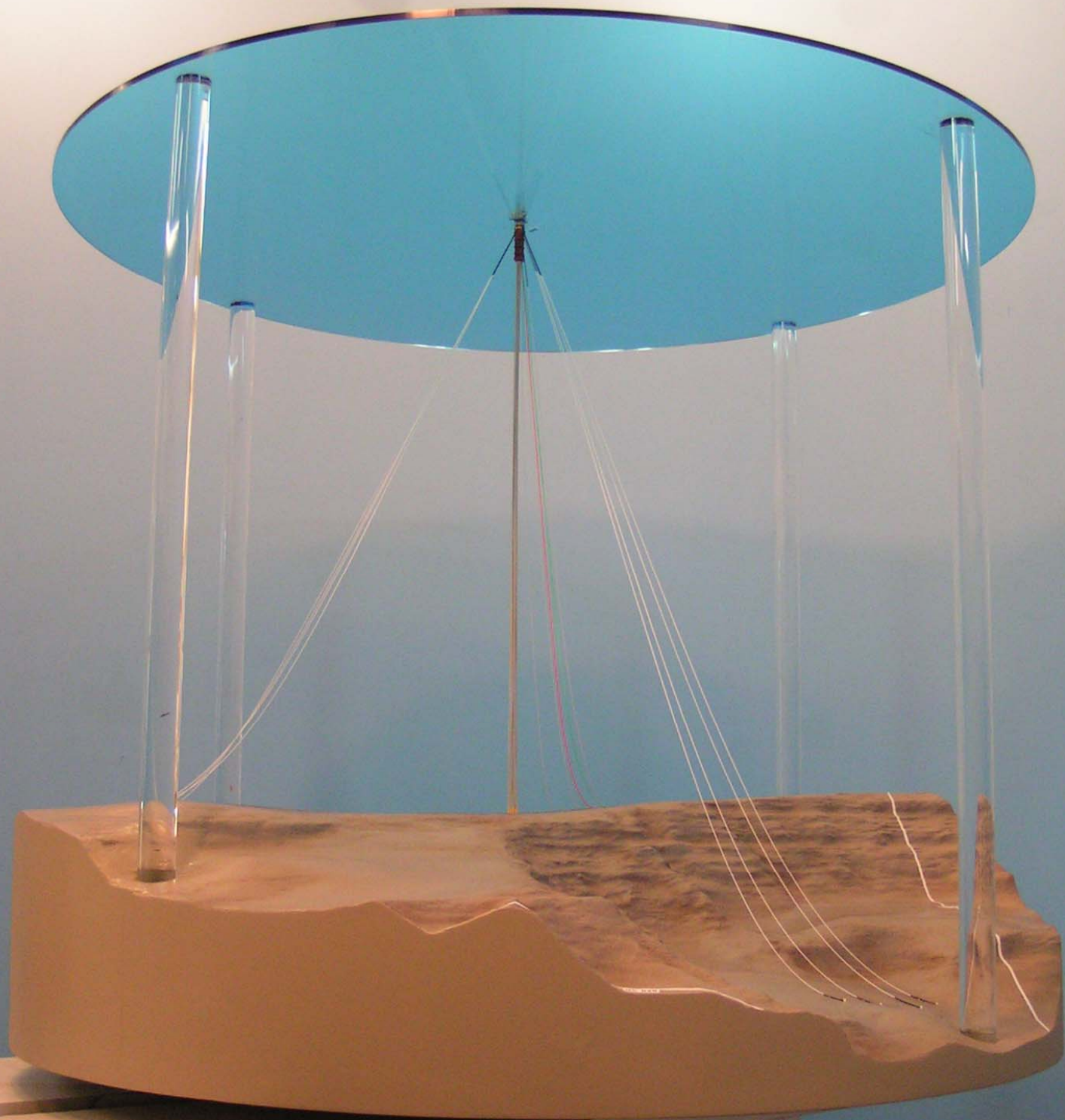
Country Labels
PEREZ GRAPHICS
Atlantis & Shenzi

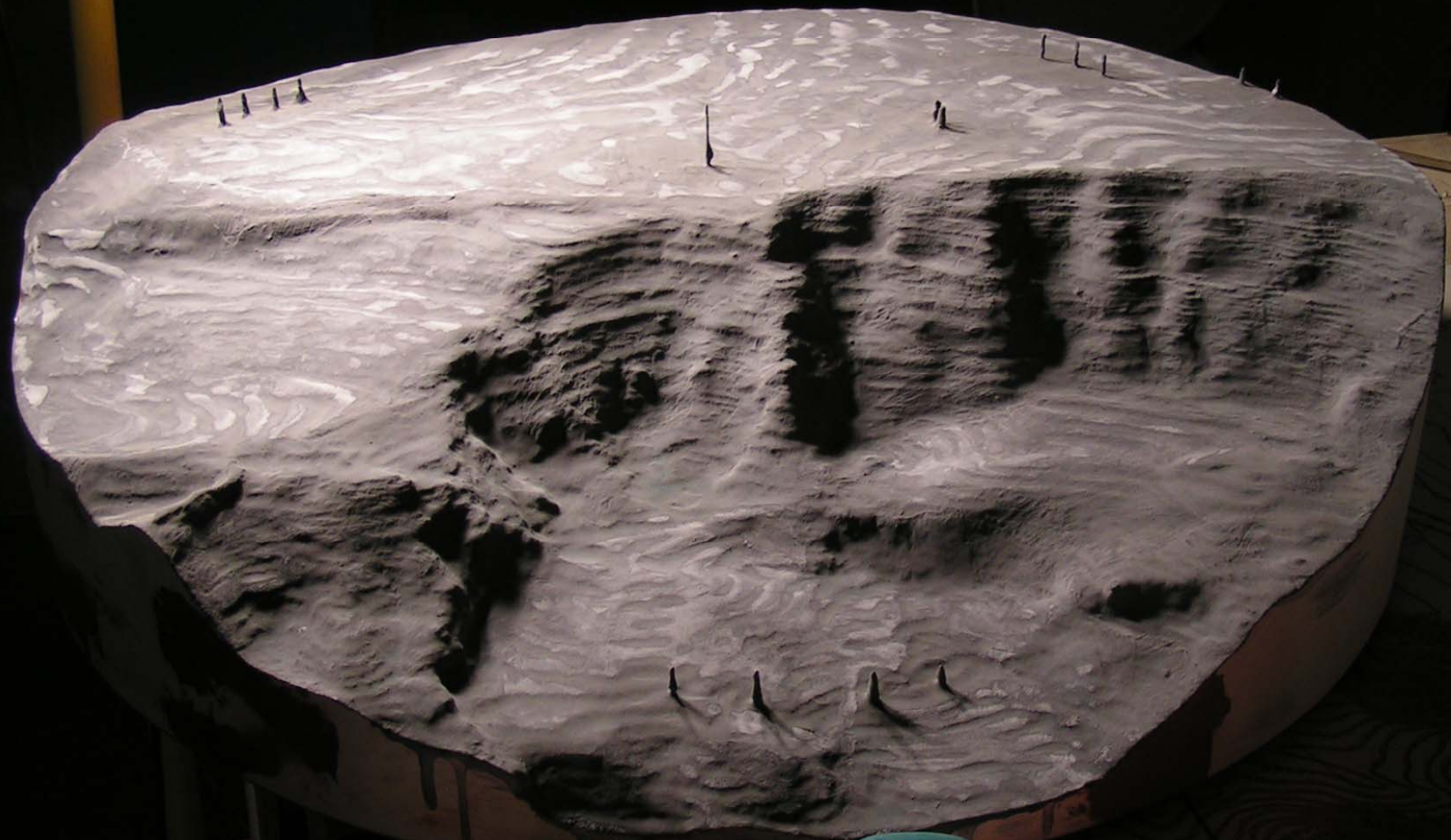














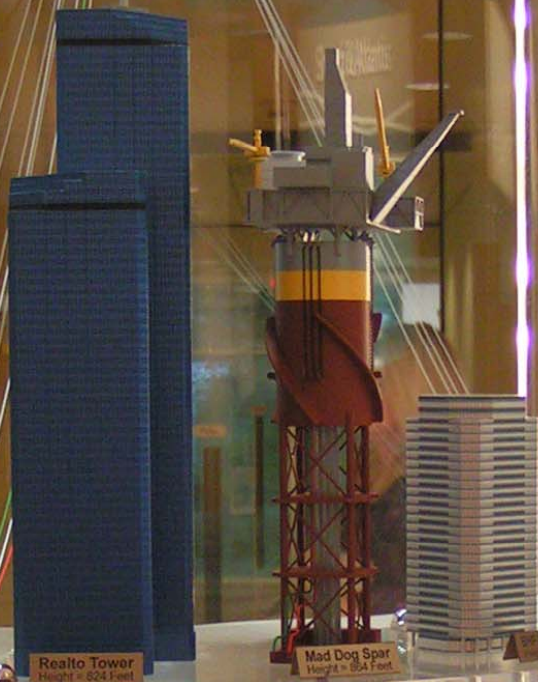
Realto Tower
Height = 824 Feet



Mad Dog Spar
Height = 864 Feet



BHP Billiton Tower
Height = 352 Feet



Realto Tower
Height = 824 Feet

Mad Dog Spar
Height = 854 Feet

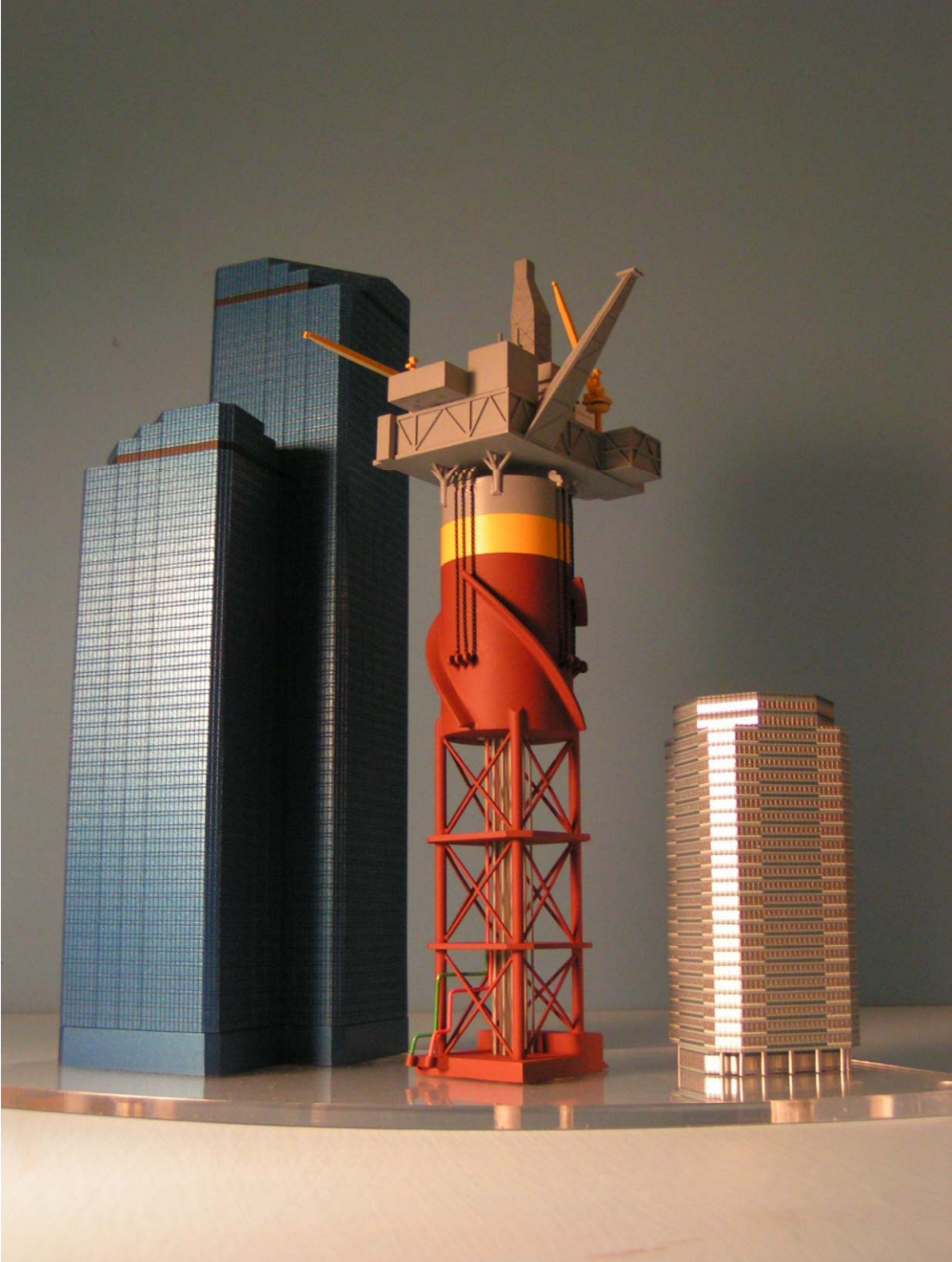
MAD DOG SPAR
A DEEPWATER GULF OF MEXICO FIELD DEVELOPMENT ATOP THE SAGSBEE ESCARPMENT

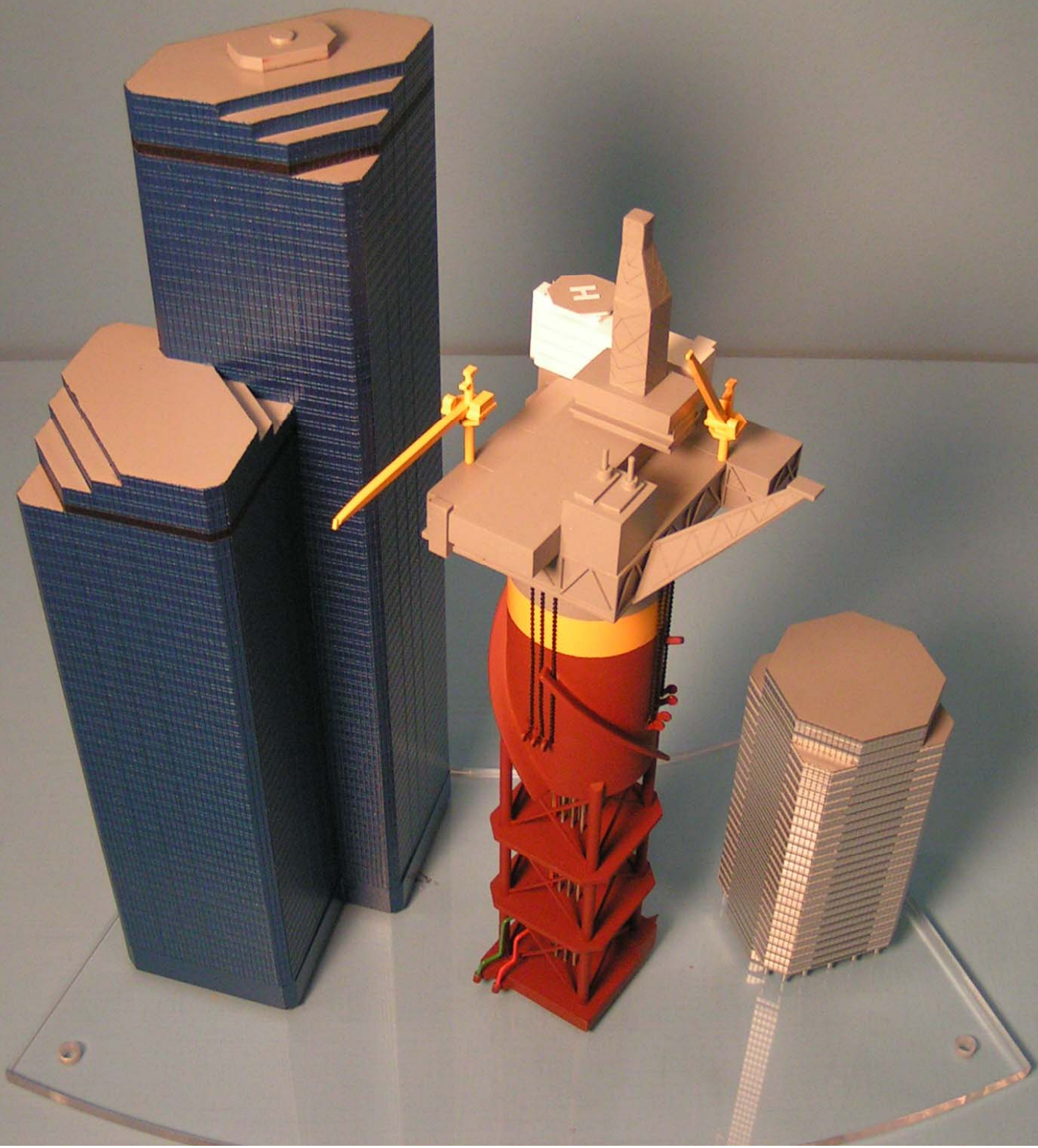
| | | |
|--------------------------------|---|------------------------------------|
| PARTNERS: | BP SHP BILLTON UNOCAL | 82.5% (Operator) 21.0% 18.5% |
| WATER DEPTHS: | 4,425 FT (1,351 M) - BENEATH THE SPAR 3,860 FT (1,176 M) - DEEPEST SUCTION PILE ANCHOR | |
| LOCATION: | GULF OF MEXICO GREEN CANYON BLOCK 102 DISCOVERY WELLS GREEN CANYON 102E ABOVE SAGSBEE ESCARPMENT | |
| SEAFLOOR FEATURE: | | |
| FACILITIES INFORMATION: | | |
| TYPE: | TRUSS SPAR | |
| DESIGNERS: | TECHNIP (SKILL, MOORING, & RISER) MUS JANSZ ENGINEERING (TOPSIDE) | |
| INSTALLATION CONTRACTOR: | FREEMAN GROUP | |
| WELL DIAMETER: | 128 FT (39 M) | |
| NO. OF SLOTS: | 14 WELLS, 2 UTILITIES (15 TANK) | |
| ENVIRONMENT: | 24,500 SHORT TONS | |
| NO. PEOPLE ON BOARD: | 126 PERSONS | |
| NO. OF MOORING LINES: | 11 MOORING LINES | |
| MOORING LINE: | CHAIN & POLYESTER ROPE | |
| WATERLIFT CAPACITY: | | |
| OIL: | 40 MBOPD | |
| GAS: | 41 MMGCPD | |
| PRODUCED WATER: | 50 MBWPD | |
| FIRST PRODUCTION: | JANUARY 13, 2005 | |

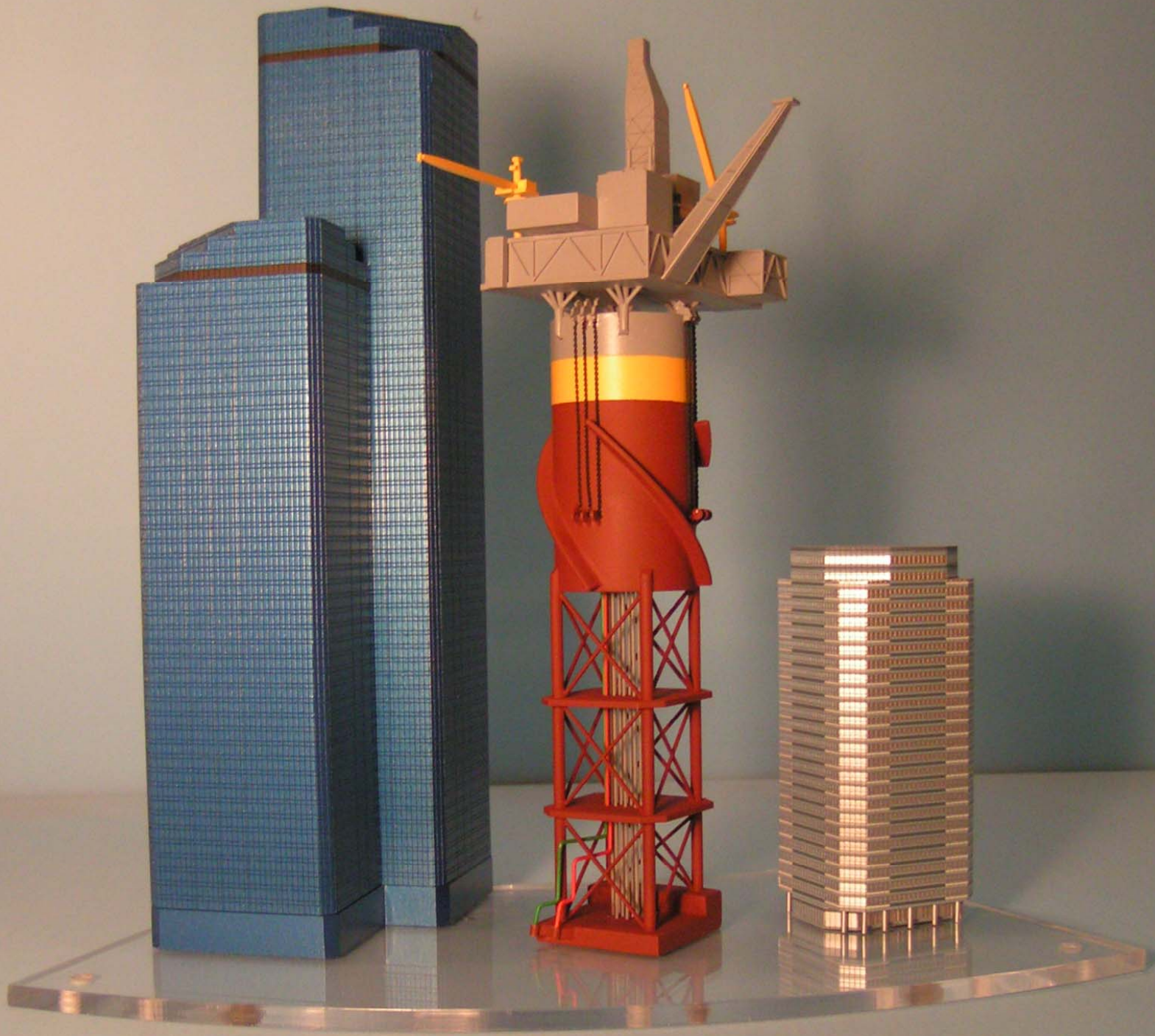
MODEL SCALE:
HEIGHT: 24 x 6 ft
(VERTICAL ENDOSCOPIC)
OVERALL: 17 x 43 ft



DANGER
KEEP OFF









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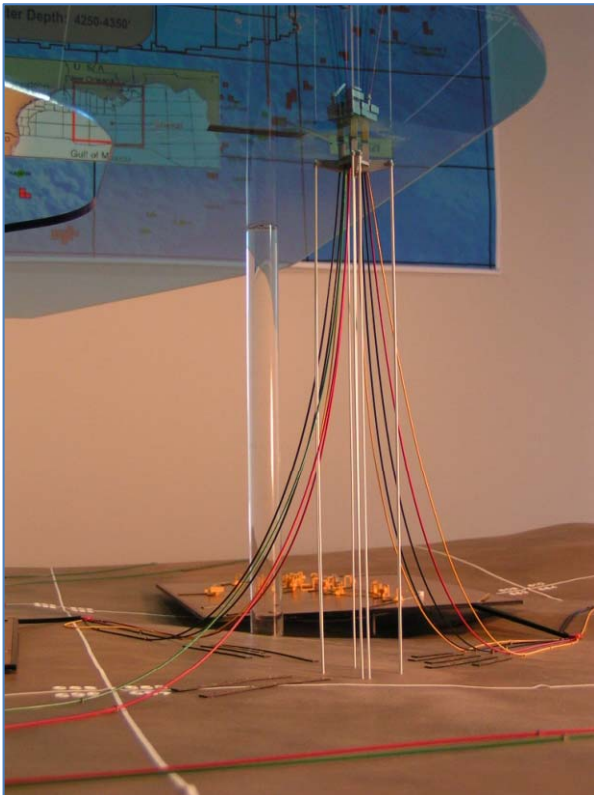
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SHENZI FIELD DEVELOPMENT

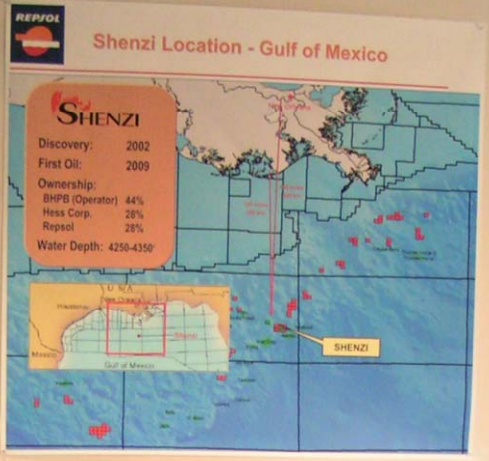


Client: Repsol E & P USA Inc.

Scale: Varies

Model Size: 32" x 45" x 60"h

Delivery Time: 8 Weeks





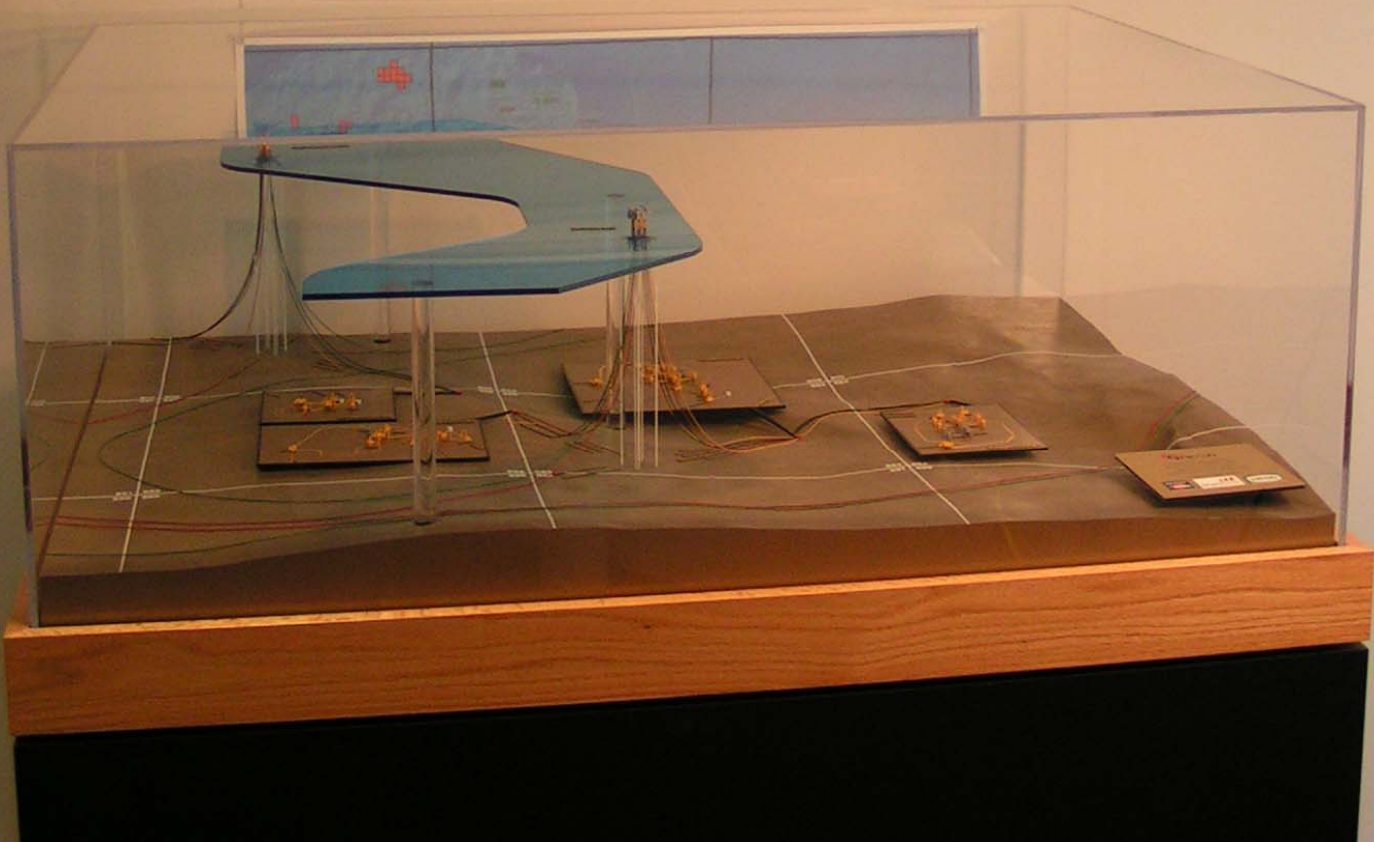
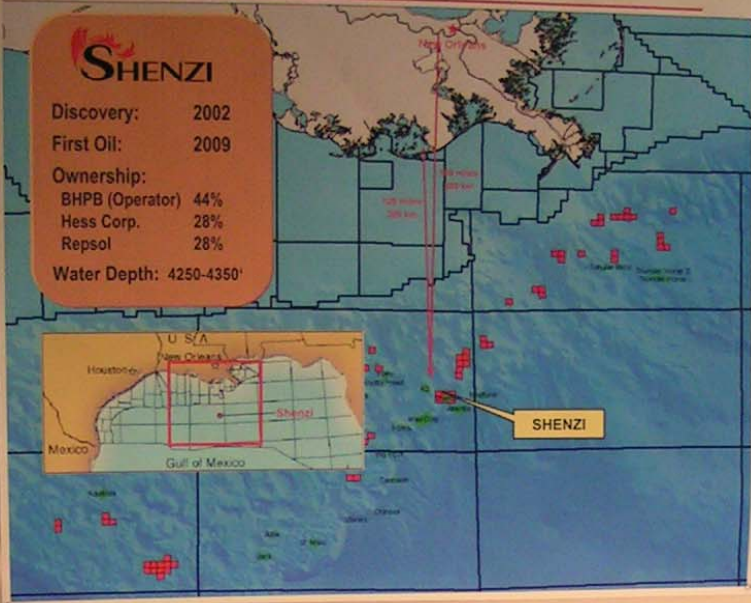
Shenzi Location - Gulf of Mexico

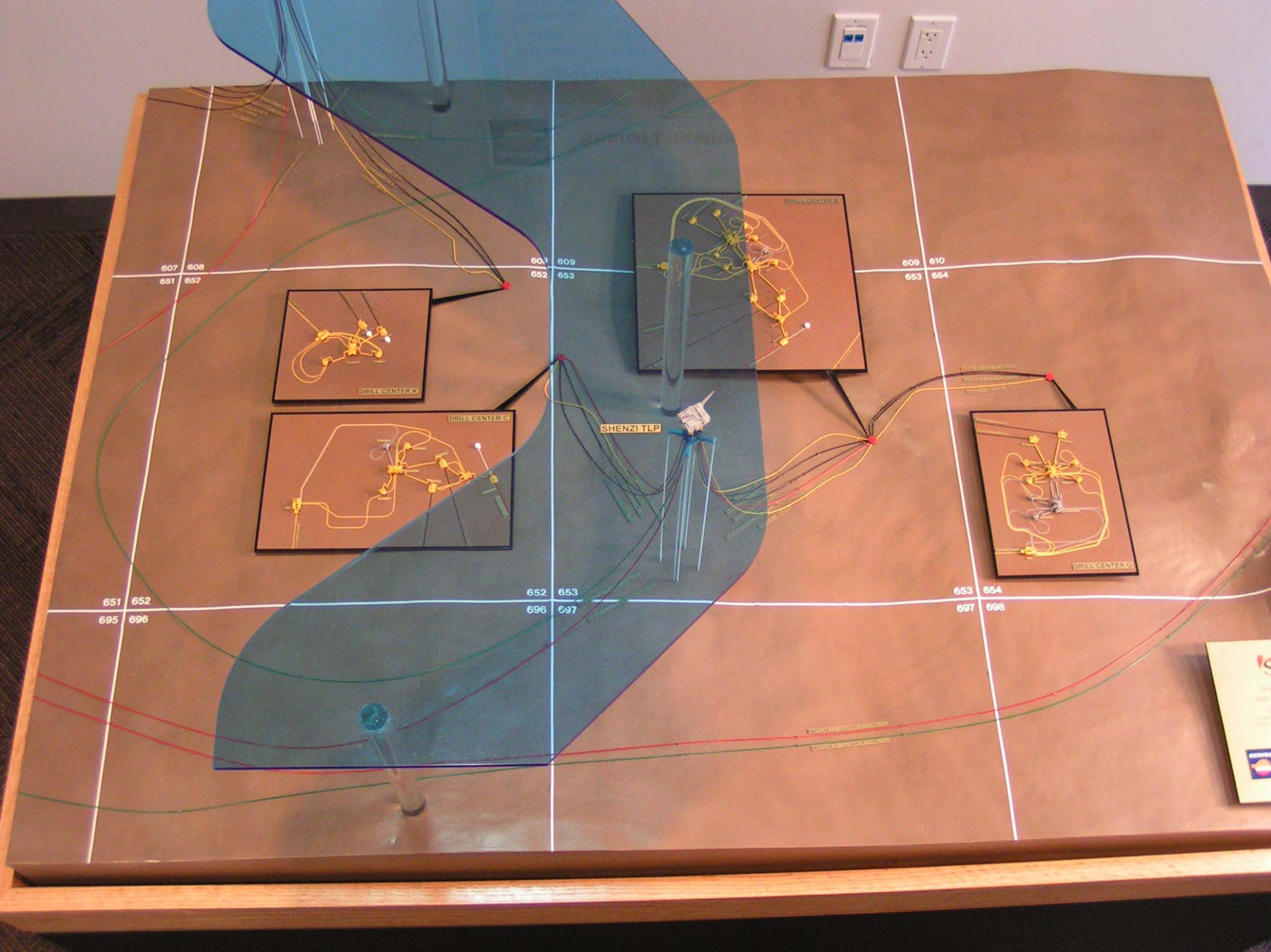
SHENZI

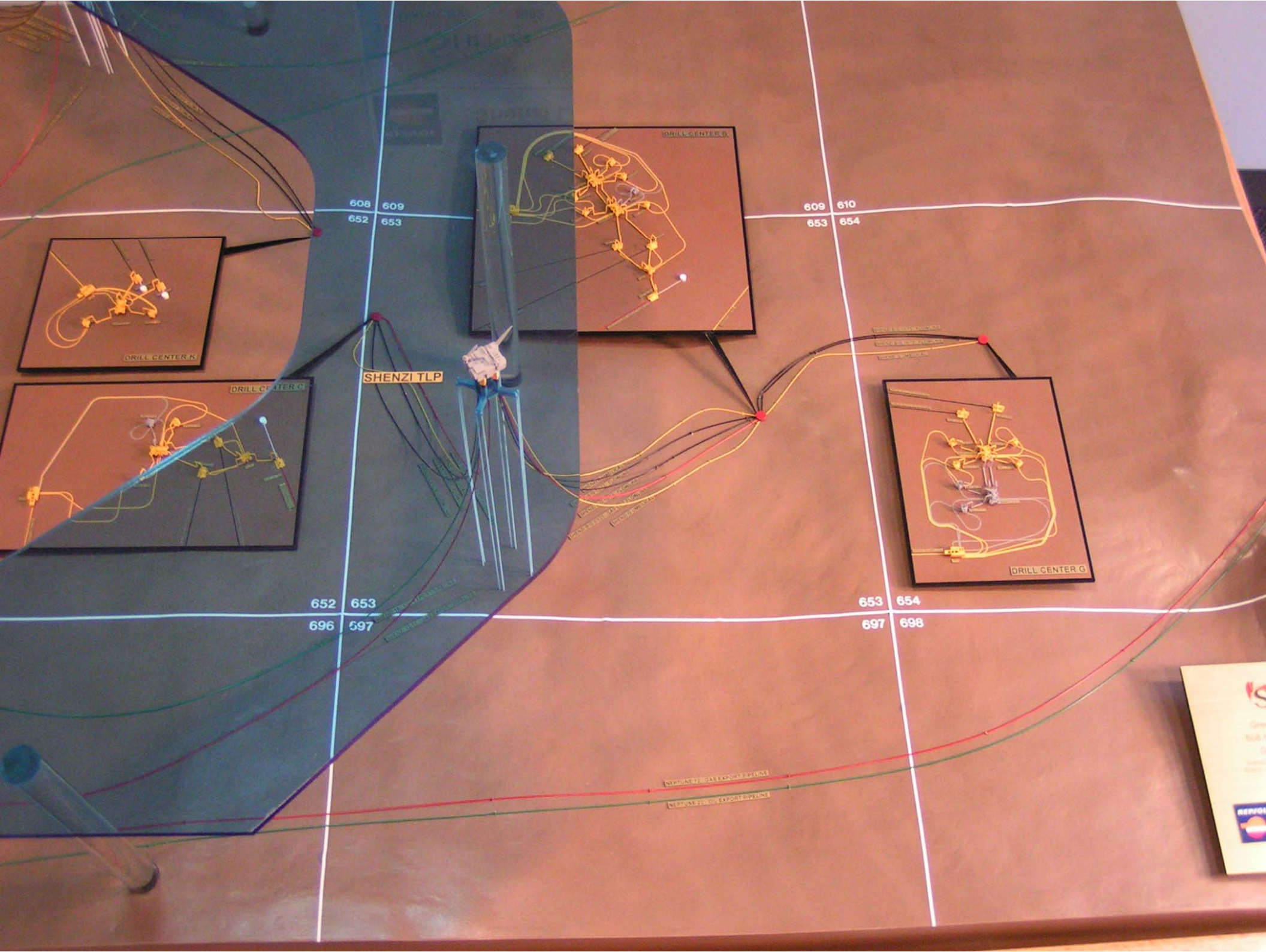
Discovery: 2002
First Oil: 2009

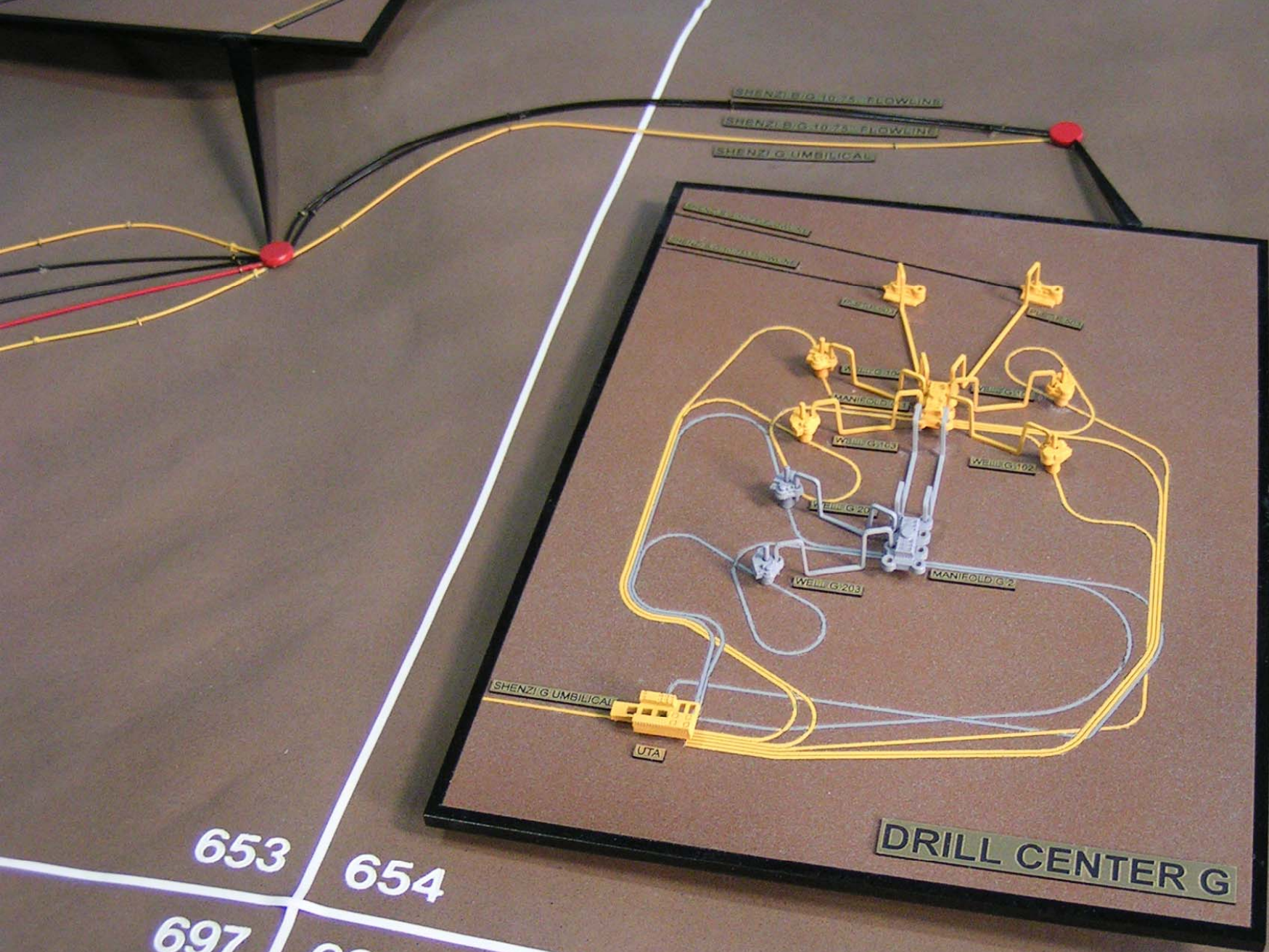
Ownership:
BHPB (Operator) 44%
Hess Corp. 28%
Repsol 28%

Water Depth: 4250-4350'









653

654

697

698

SHENZI G UMBILICAL

SHENZI G UMBILICAL

SHENZI G UMBILICAL

WELL G 104

WELL G 104

WELL G 104

WELL G 104

MANIFOLD G

WELL G 103

WELL G 102

WELL G 204

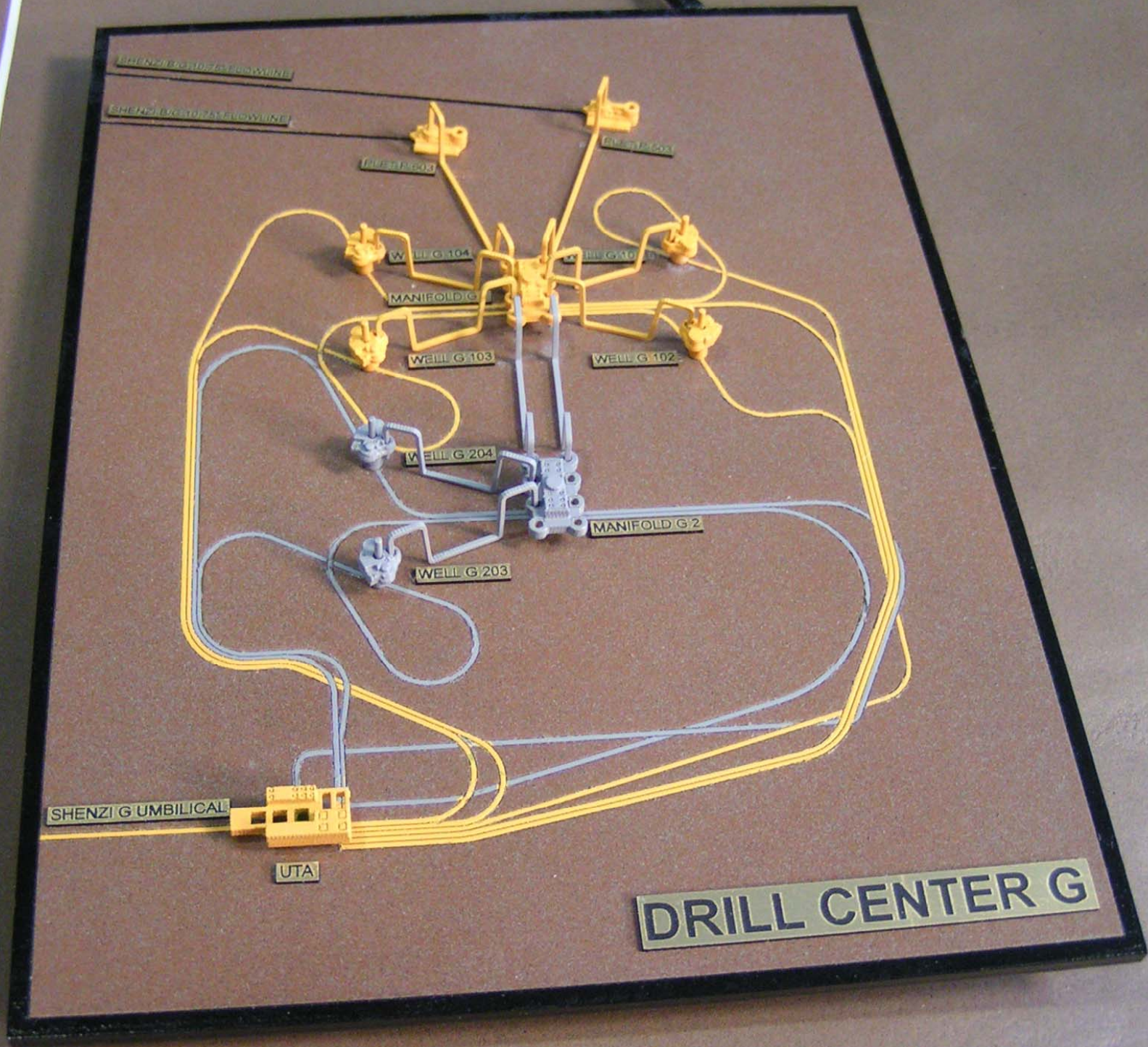
MANIFOLD G 2

WELL G 203

SHENZI G UMBILICAL

UTA

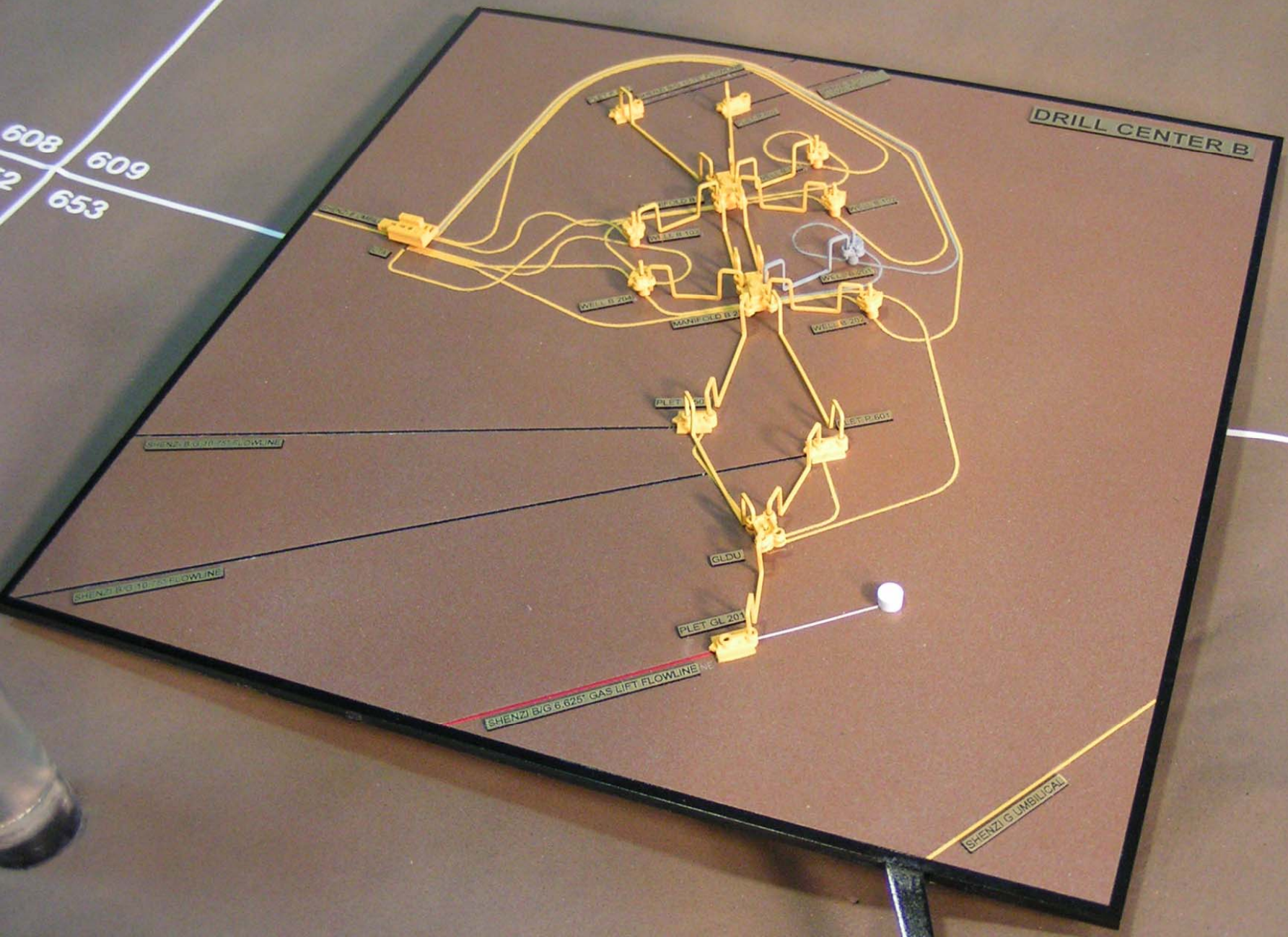
DRILL CENTER G

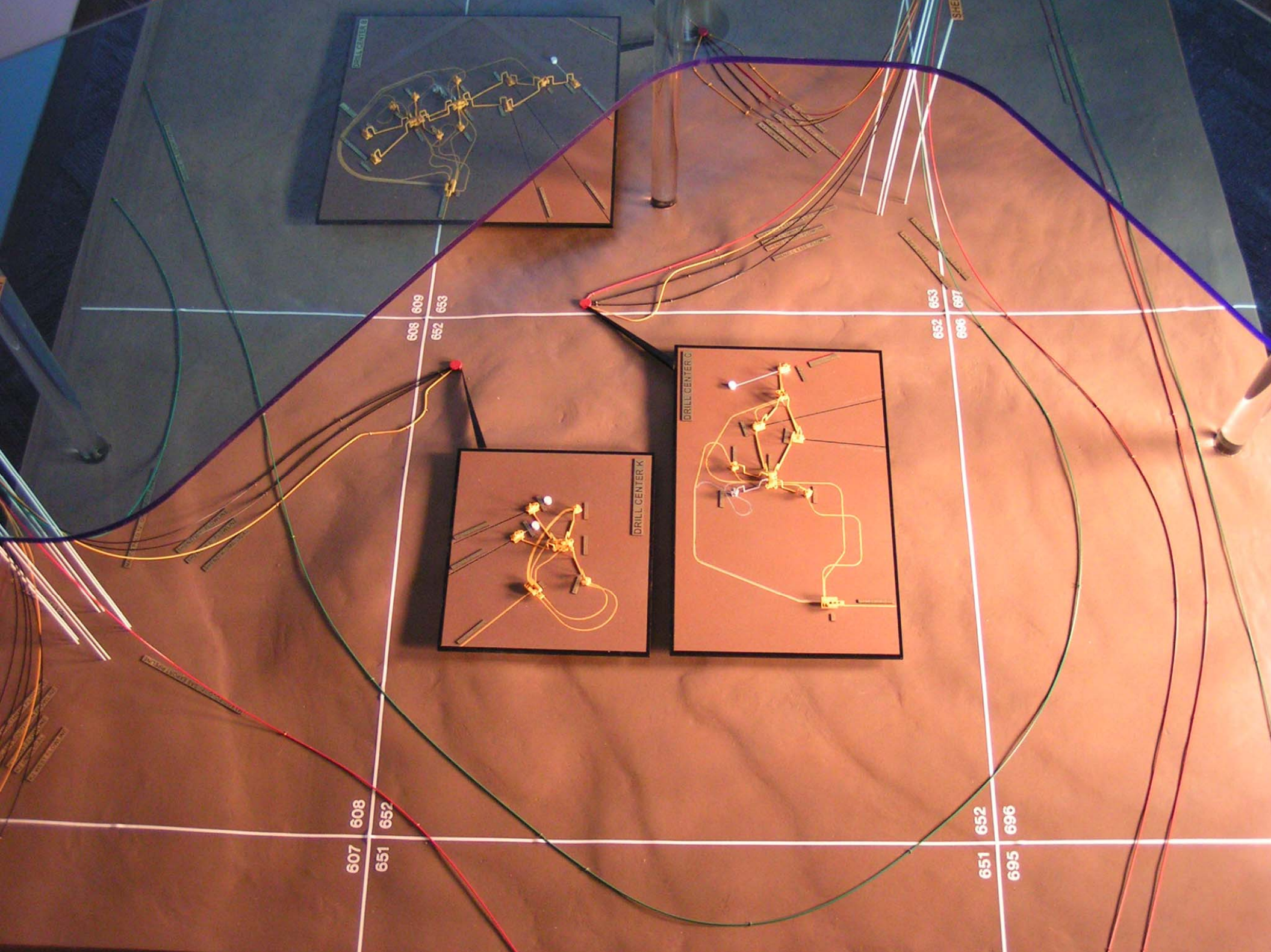


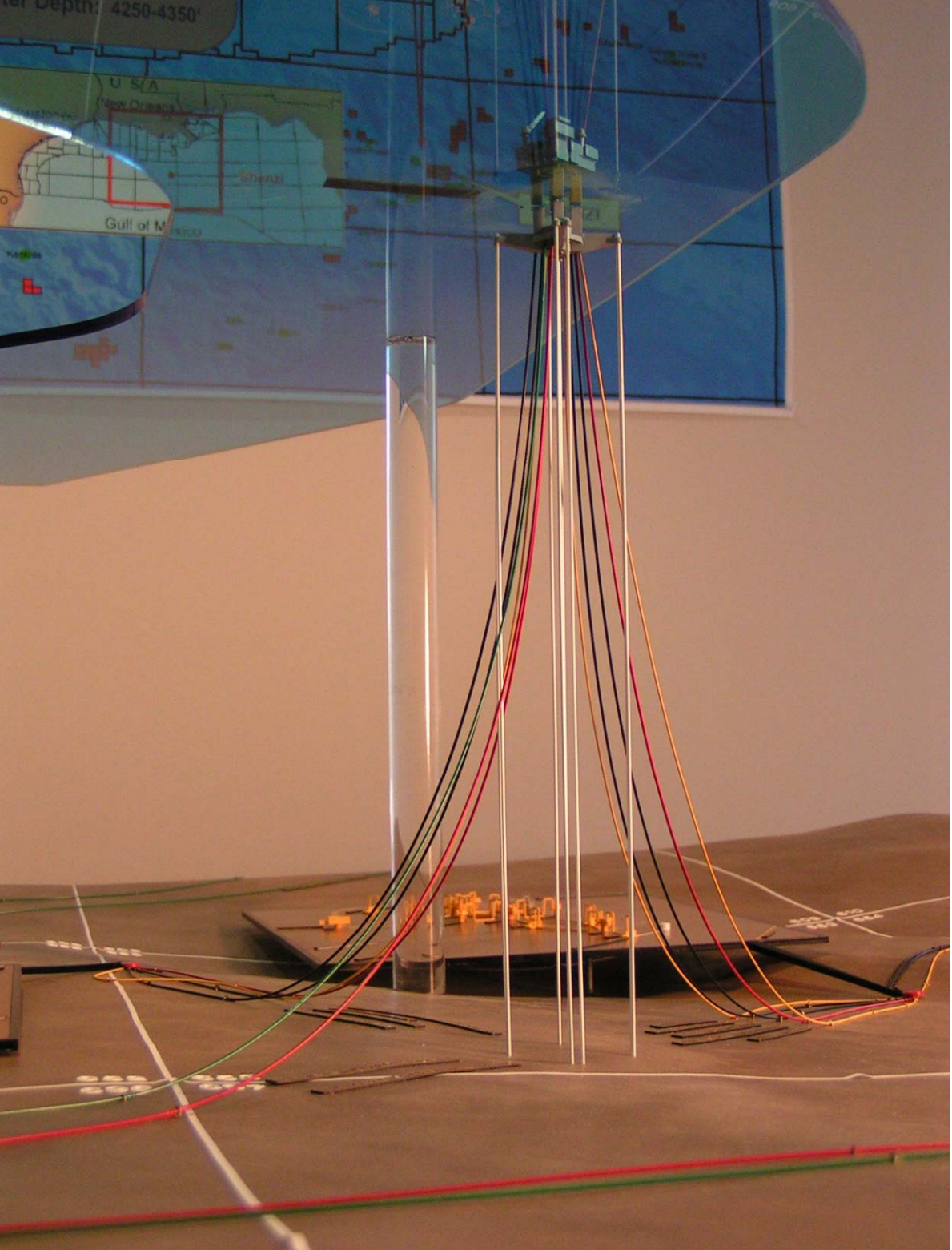
608 609
2 653

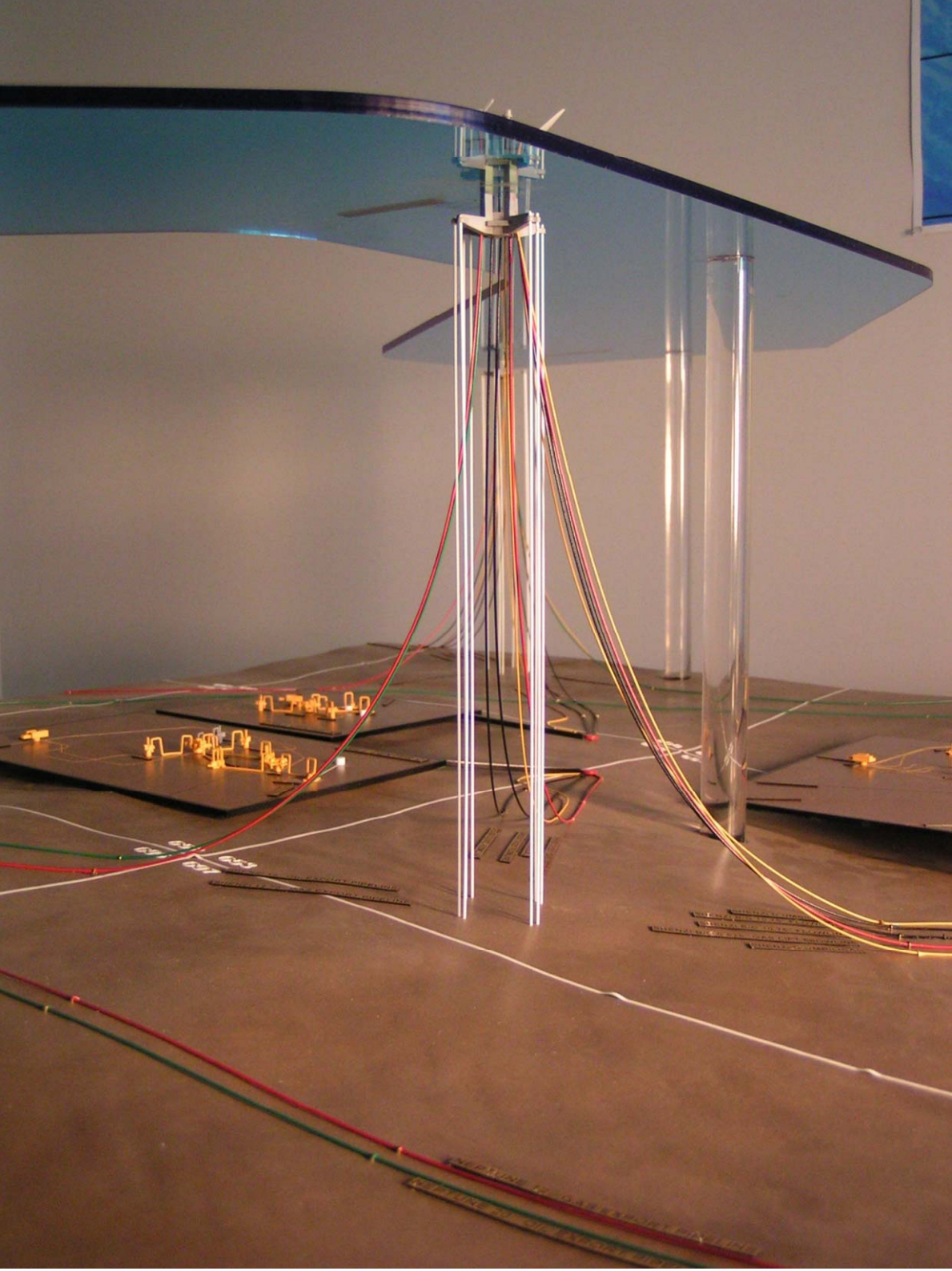
DRILL CENTER B

60
65

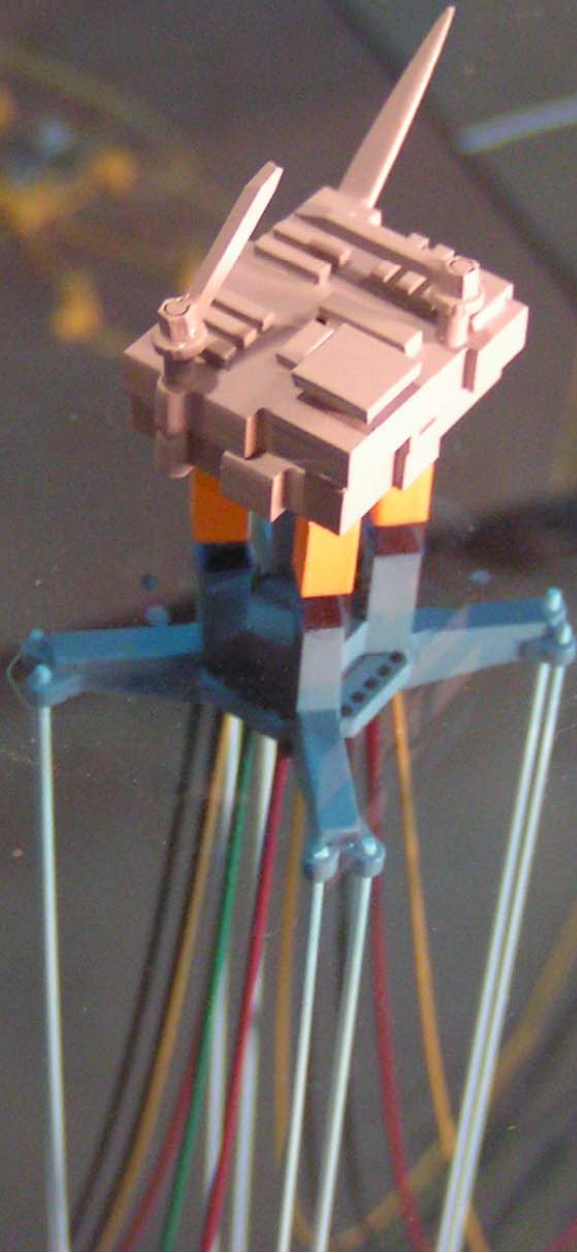




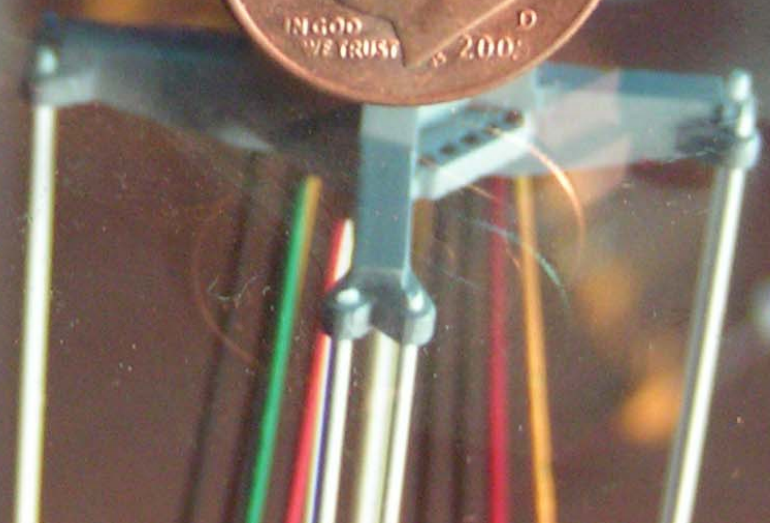
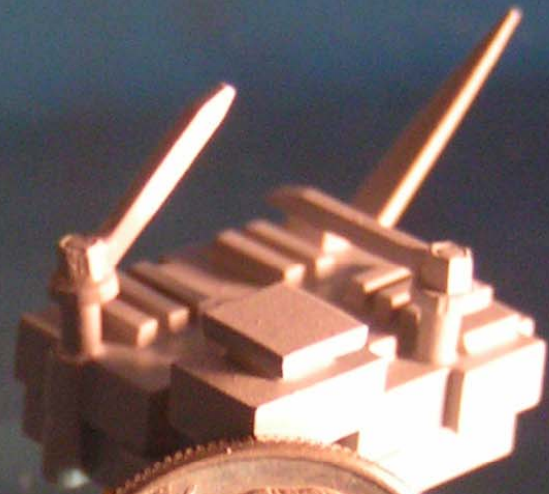




SHENZI TLP



SHENZI TLP





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SUBSURFACE INJECTION WELL



Client: Subsurface Technology, Inc.

Scale: Varies

Model Size: 6" x 24" x 65"h

Delivery Time: 5 Weeks

UNDERGROUND
SOURCES OF
DRINKING WATER

CONFINING UNIT
UNSATURATED ZONE

BUFFER
ZONE

UPPER
CONFINING
ZONE

CONTAINMENT
INTERVAL

INJECTION
ZONE

INJECTION
INTERVAL

LOWER
CONFINING
UNITS



AMOCO PETROLEUM PRODUCTS
TEXAS CITY REFINERY

1 MILE



UNDERGROUND SOURCES OF DRINKING WATER
Water Contaminated from the Amoco Texas City Refinery
That Reached the Surface

BUFFER ZONE

UPPER CONFINING ZONE

CONTAINMENT INTERVAL

INJECTION ZONE

INJECTION INTERVAL
Water Contaminated from the Amoco Texas City Refinery
That Reached the Surface

LOWER CONFINING UNITS

AMOCO PETROLEUM PRODUCTS
TEXAS CITY REFINERY



CONTAINMENT
INTERVAL

INJECTION
ZONE

INJECTION
INTERVAL

Native Formation Brine
With 147,000 mg/l
Total Dissolved Solids

PACKER

6000

7000'

LOWER
CONFINING
UNITS

AMOCO PETROLEUM PRODUCTS
TEXAS CITY REFINERY

MODEL BUILT BY



**UNDERGROUND
SOURCES OF
DRINKING WATER**

Water Contains Less Than 10,000mg/l
Total Dissolved Solids

SURFACE CASING



CONTAINMENT
INTERVAL

1 MILE

OAKVILLE FORMATION
(MIOCENE)

INJECTION
ZONE

PACKER

INJECTION
INTERVAL

Native Formation Brine
With 147,000 mg/l
Total Dissolved Solids

6000'

LOWER
CONFINING
UNITS

7000'



AMOCO PETROLEUM PRODUCTS
TEXAS CITY REFINERY



MOD. 1. DESIGNED BY
ENVIROCORP

UNDERGROUND SOURCES OF DRINKING WATER

Water Contains Less Than 10,000 mg/l
Total Dissolved Solids

SURFACE CASING

WELL

WELL

WELL CASING