

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

ARTESIA, NM 88210-4834

## APPLICATION FOR PERMIT TO DRILL OR DEEPEN

## 1a. TYPE OF WORK

DRILL ☒DEEPEN ☐

## b. TYPE OF WELL

OIL WELL ☒GAS WELL ☐

OTHER

SINGLE ZONE ☒MULTIPLE ZONE ☐

## 2. NAME OF OPERATOR

KCS Medallion Resources, Inc.

161859

## 3. ADDRESS AND TELEPHONE NO.

7130 South Lewis Avenue, Suite 700, Tulsa, OK 74136-5489. Phone (918) 499-1325

## 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*

At surface

330 ft FNL &amp; 990 ft FEL of Section 19

At proposed prod. zone

Same

Unit A

## 14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

The location is about 7 miles SE of Loco Hills

## 16. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drilg. unit line, if any)

330 ft

## 16. NO. OF ACRES IN LEASE

320 Acres more or less

## 17. NO. OF ACRES ASSIGNED TO THIS WELL

40 Acres

## 18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.

136 ft

## 19. PROPOSED DEPTH

8,500 ft

## 20. ROTARY OR CABLE TOOLS

Rotary Tools

## 21. ELEVATIONS (Show whether DF, ET, GR, etc.)

3640 ft, Ground Level

## 22. APPROX. DATE WORK WILL START\*

15 December 2000

## 23.

## PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | GRADE, SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT    |
|--------------|-----------------------|-----------------|---------------|-----------------------|
| 26"          | Sch 10, 20"           | 52.73 lbs.      | 40 to 80 ft   | Ready-Mix to surface  |
| 17 1/2"      | H40, 13 3/8"          | 48 lbs.         | 500 ft        | 370 sacks w/additives |
| 11"          | J55, 8 5/8"           | 32 lbs.         | 2,800 ft      | 620 sacks w/additives |
| 7 7/8"       | J55, 5 1/2"           | 15.5 & 17 lbs.  | 8,500 ft      | 245 sacks w/additives |

## Procedure:

1. Drill 26 in hole and set 20 in conductor w/rat hole digger if necessary. Cement to surface
2. Drill 17 1/2 in hole to 500 ft and set 13 3/8 in casing. Cement to surface.
3. Drill 11 in hole to 2800 ft and set 8 5/8 in casing. Cement to surface.
4. Install Hydrill and BOP Stack. Test to 2750 psig.
5. Drill cement in casing to within 20 ft of shoe. Test casing to 1500 psig.
6. Drill 7 7/8 in hole through the Bone Springs formation to TD. DST as necessary.
7. Run electric logs. Shoot sidewall cores if desired.
8. If warranted, run and cement 5 1/2 in casing. Cement to 500 ft above top zone of interest.
9. Test 5 1/2 in casing to 3000 psig prior to perforation.

## Exhibits Attached:

- A. Location and elevation plat.  
B. Location Verification Map.  
C. Vicinity map.

- D. Surface Use Plan.  
E. Drilling Plan.

- F. Blow Out Preventer Diagram

- G. Typical Wellsite Layout

- I. Map of Existing Wells in Area

- J H2S Drilling Operations Plan



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

24.

SIGNED

TITLE

Senior Drilling Engineer

DATE

11-16-00

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY

/S/LARRY D. BRAY

TITLE

Assistant Field Manager,  
Land Minerals

DATE

11/16/00

\*See Instructions On Reverse Side

FOR 1 YEAR

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

## Exhibit "A"

## DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

## DISTRICT II

P.O. Drawer 80, Artesia, NM 88211-0719

## DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

## DISTRICT IV

P.O. Box 2088, Santa Fe, NM 87504-2088

## State of New Mexico

Energy, Minerals and Natural Resources Department

OCT 24 2000

Form C-102

Revised February 10, 1994

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

OPERATIONS

## OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

|               |  |                   |
|---------------|--|-------------------|
| API Number    | Pool Code                                      | Pool Name         |
| Property Code | Property Name<br>SHUGART WEST "19" FEDERAL     | Well Number<br>11 |
| OGRID No.     | Operator Name<br>KCS MEDALLION RESOURCES, INC. | Elevation<br>3640 |

## Surface Location

| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| A             | 19      | 18 S     | 31 E  |         | 330           | NORTH            | 990           | EAST           | EDDY   |

## Bottom Hole Location If Different From Surface

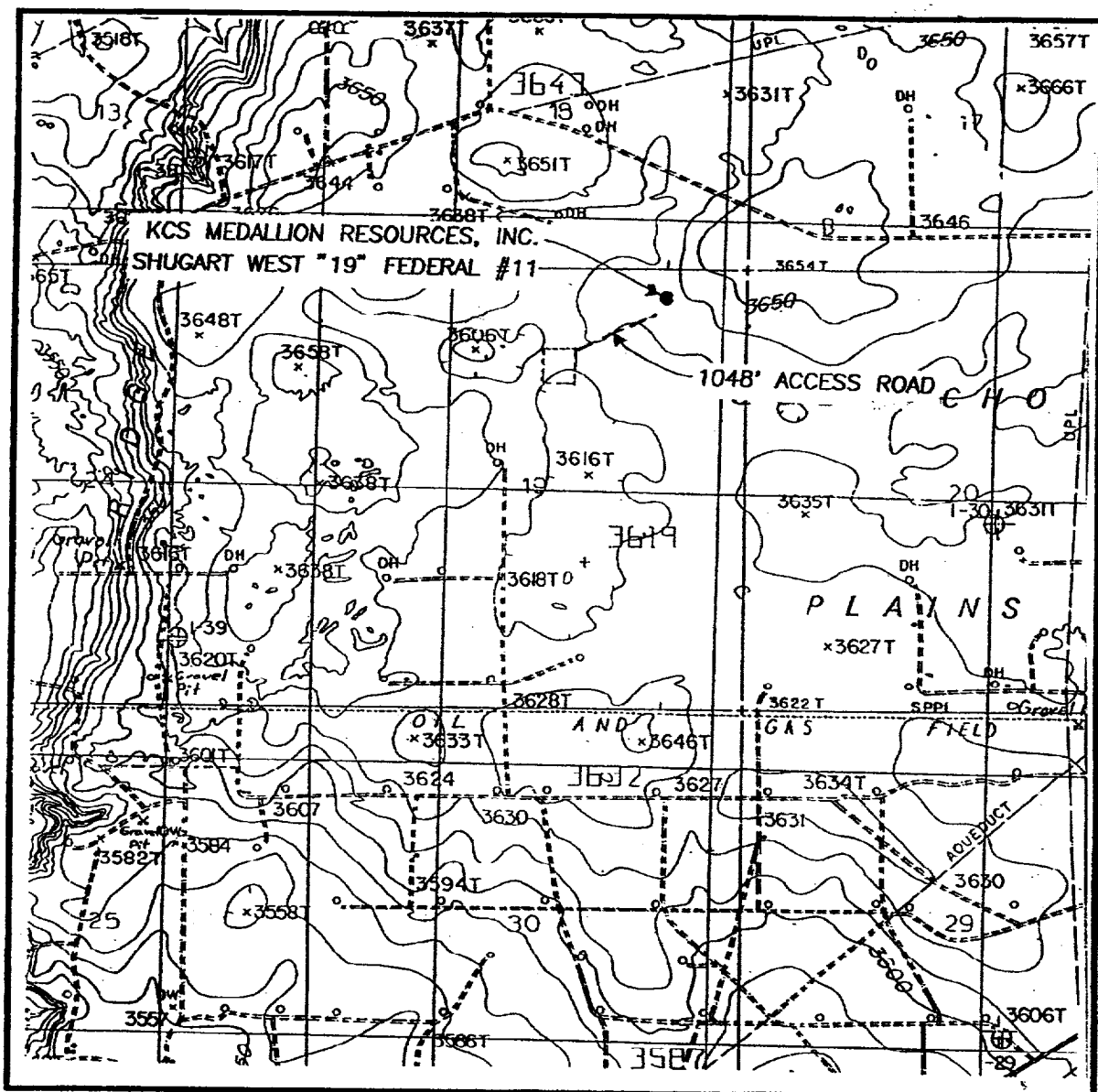
| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
|               |         |          |       |         |               |                  |               |                |        |

|                 |                 |                    |           |
|-----------------|-----------------|--------------------|-----------|
| Dedicated Acres | Joint or Infill | Consolidation Code | Order No. |
|                 |                 |                    |           |

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

|                 |  |  |
|-----------------|--|--|
| LOT 1 34.89 AC. |  | <b>OPERATOR CERTIFICATION</b><br>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.<br><br>Signature<br>Tom Williams<br>Printed Name<br>Sr. Drilling Engineer<br>Title<br>10-24-00<br>Date   |
| LOT 2 35.01 AC. |  | <b>SURVEYOR CERTIFICATION</b><br>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.<br>OCTOBER 18, 2000<br>Date Surveyed<br><br>Signature & Seal of Professional Surveyor<br>RONALD L. EIDSON<br>N.O. Num. 00-13-1297<br>Certificate No. RONALD L. EIDSON, 3939<br>PROFESSIONAL SURVEYOR, 12041 |
| LOT 3 35.09 AC. |  |  |
| LOT 4 35.21 AC. |  |  |

# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL - 10'

SEC. 19 TWP. 18-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 330' FNL & 990' FEL

ELEVATION 3640

OPERATOR KCS MEDALLION RESOURCES, INC.

LEASE SHUGART WEST "19" FEDERAL

U.S.G.S. TOPOGRAPHIC MAP

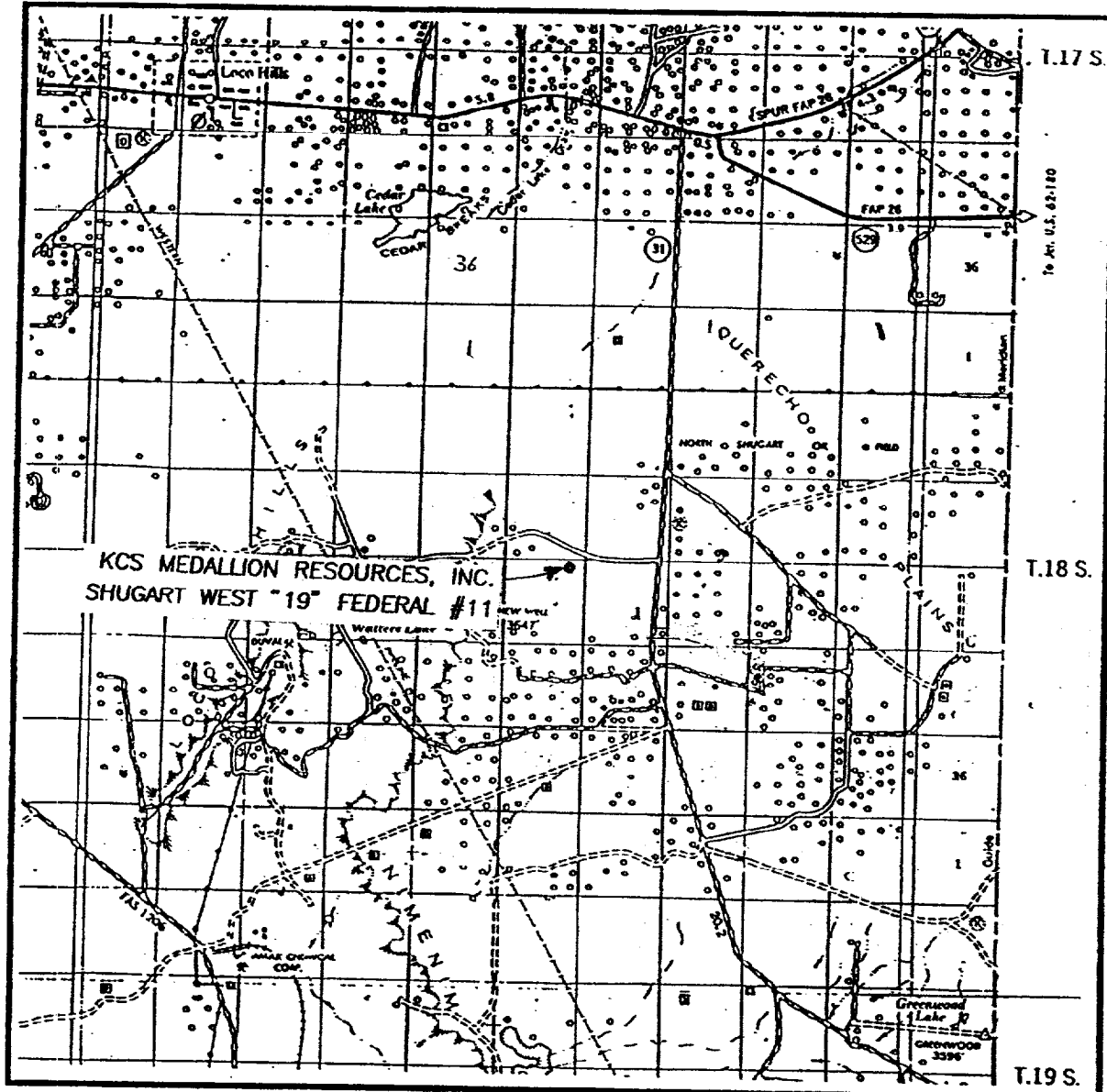
HACKBERRY LAKE, N.M.

**JOHN WEST SURVEYING  
HOBBS, NEW MEXICO**

**(505) 393-3117**

Exhibit "C"

# VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 19 TWP. 18-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 330' FNL & 990' FEL

ELEVATION 3640

OPERATOR KCS MEDALLION RESOURCES, INC.

LEASE SHUGART WEST "19" FEDERAL

**JOHN WEST SURVEYING**  
**HOBBS, NEW MEXICO**  
**(505) 393-3117**

Exhibit "D"  
Multi-Point Surface Use and Operations Plan  
**KCS Medallion Resources, Inc.**  
7130 South Lewis Avenue, Suite 700  
Tulsa, OK 74136

West Shugart "19" Federal No. 11  
330 ft FNL & 990 ft FEL  
Sec. 19, T18S, R31E N.M.P.M  
Eddy County, New Mexico

Lease No. NM 067896

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of the plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of necessary surface disturbance involved, and the procedures to be followed in rehabilitating the surface after completion of operations so that a complete appraisal can be made of the environmental effects associated with the operation.

1 Existing Roads

- A. Exhibit "B", the Location Verification Map, is a reproduction of portion of a topographic map showing the location of the proposed well as staked with reference to the local topography and to the existing roads, wells, and other culture in the area. Exhibit "C" is a map of smaller scale showing the proposed location with reference to the major roads in the vicinity. The proposed well is located approximately 7 miles SE of Loco Hills and about 2 miles north west of the intersection of CR 222 and Grubbs Road, CP 250..
- B. Directions: From Loco Hills go approximately 6 miles east on US 82 to the intersection of US 82 and CR222, then go south on CR222 7 miles to Grubbs Road, CP250. Turn west on CP250 and go 1.4 miles to a lease road on the north. Go north on lease road about 0.8 miles, jog left about 400', then turn right and continue back north for approximately 1.1 mile to the KCS Medallion Shugart West "19" Federal No. 8 well. The proposed location lies about 0.2 of a mile to the east north east..

2. Planned Access Road

- A. Length and Width: The new road will be about 1048 ft long and about 20 ft wide, including the shoulders. The road centerline has been flagged.
- B. Surfacing Material: The new road will be constructed of material-in-place. If necessary the road will be surfaced with caliche.
- C. Maximum Grade: Less than 3%
- D. Turnouts: One may be constructed about half way between the two locations and the road may be widened somewhat in the curves to contain long load traffic to the road bed and to allow passing of smaller vehicles.
- E. Drainage Design: The road will be constructed with about 4 in of crown at the centerline. Water turnouts will be constructed at 300 ft intervals.
- F. Culverts: None appear to be necessary.

- G. Cuts and Fills: Any cut or fill on the location would be less than 4 ft.
- H. Gates and Cattle guards: None additional appear to be necessary.
- I. Right of Way: Right of Way across existing roads has been previously acquired from The Bureau of Land Management across Section 30, T18S, R31E, Eddy Co. to provide access for the drilling of the W. Shugart 19 Federal No.1, located in the SW/4 of Sec. 19, T18S, R31E. It is expected that this same ROW will be utilized for this well.

3. Location of Existing Wells

Existing wells are shown on Exhibit 'I'.

4. Location of Existing and/or Proposed Facilities

If the well is productive, production, storage, and measurement facilities will be constructed on the wellpad.

5. Location and Type of Water Supply

Plans are to purchase water for the drilling operations from a commercial supplier.

6. Source of Construction Materials

Plans call for use of material-in-place for construction. If caliche is necessary for road or pad surfacing, it would be obtained from the reserve pit. No caliche or other material will be taken from Public Land without prior approval.

7. Methods of Handling Waste Disposal

- A. Drill cuttings will be disposed of in the drilling pits.
- B. Drilling fluids will be allowed to evaporate in the drilling pits until the pits are dry.
- C. Water produced during testing will be stored in tanks and trucked to an approved disposal facility. Oil produced during testing will be stored in test tanks until sold.
- D. The operator will comply with current laws and regulations pertaining to the disposal of human waste.
- E. Trash, waste paper, garbage, and junk will be stored in a trash trailer and will be contained to prevent scattering by the wind.
- F. All trash and debris will be removed from the wellsite within 30 days after completing drilling, completion, and construction operations and will be disposed of in an approved trash disposal facility.

8. Ancillary Facilities

None are necessary.

9. Well Site Layout

- A. The well location and the 400 ft X 400 ft surrounding area have been surveyed and flagged.
- B. Dimensions and relative location of the drill pad, pit, and equipment are shown on Exhibits 'A', 'B', and 'G'.
- C. Top soil for the restoration will be stock-piled on the north and east sides of the location.

10. Plans for Restoration of the Surface

- A. After completion of drilling, completion, and construction operations, all equipment and other material not needed for operations will be removed. Pits will be filled and the location cleaned of all trash and junk so as to leave the wellsite in an as aesthetically pleasing condition as possible.
- B. Any unguarded pits containing fluids will be fenced until they are filled.
- C. If the well is not productive, the disturbed area will be restored to Federal Agency requirements and will be accomplished as expeditiously as possible.

11. Surface Ownership

- A. All the surface in the E/2 of Section 19 is Public Land.

12. Other Information

- A. Topography: The area is described as; "an undulating dunal plain of low to slightly moderate relief with associated deflation basins of mostly moderate depths."
- B. Soil: Described as being Pyote-Maljamar-Kermit association which are gently undulating and rolling, deep, sandy soils and Simona-Pajarito association which are sandy, deep soils and soils that are shallow to caliche; from wind worked deposits..
- C. Flora and Fauna: The vegetation consists primarily of shin oak, sagebrush, yucca, snakeweed, cat claw, assorted grasses, mesquite and other flora. No wildlife was observed but probably consists primarily of small reptiles and rodents.
- D. Pond or Streams: There are no pond or streams within one mile.
- E. Residences and Other Structures: There are no known structures or residences within one half mile of the location.
- F. Archaeological, Historical, and other Cultural Sites: The location and road have been surveyed by Archaeological Survey Consultants of Roswell, NM. Their report will be filed with the Carlsbad office of the Bureau of Land Management within the next few days.

G. Land Use: No livestock were seen and there was no evidence of grazing. The land appears to be essentially idle.

H. Operator's Representative:

|                             |           |                |
|-----------------------------|-----------|----------------|
| Doug York, Field Supervisor | Mobil:    | (915) 650 1949 |
| Best Western Pecos Inn      | Pager     | (505) 364 1131 |
| 2209 W. Main                | Motel     | (505) 748 3324 |
| Artesia, NM 88210           | Motel Fax | (505) 748 2868 |

|                                      |               |                |
|--------------------------------------|---------------|----------------|
| Larry Wheat, Drilling Superintendent | Office Phone: | (918) 491 4114 |
| 7130 S. Lewis Ave., Suite 700        | Cell Phone    | (918) 855 6222 |
| Tulsa, OK 74136-5489                 | Pager         | (918) 643 6430 |
|                                      | Fax           | (918) 488 8750 |

Certification:

I certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge true and correct; that the work associated with the operations proposed herein will be performed by KCS Medallion Resources, Inc. and its subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Date 11-16-00 Signed   
Title: Senior Drilling Engineer



Exhibit "E"  
Eight Point Compliance Program  
**KCS Medallion Resources, Inc.**  
7130 South Lewis Avenue, Suit 700  
Tulsa, OK 74139-5489

Drilling Plan

Shugart West "19" Federal No. 11  
330 ft FNL & 990 ft FEL  
Sec. 19, T18S, R31E N. M. P. M.  
Eddy Co. New Mexico

Lease No. NM 067896

1. Estimated Tops of Geologic Markers

| <u>Horizon</u>                     | <u>Depth ft</u> | <u>Sea Level Datum</u> |
|------------------------------------|-----------------|------------------------|
| Surface                            | 0               | +3,640                 |
| Anhydrite                          | 515             | +3,090                 |
| B/Salt                             | 1,793           | +1,847                 |
| Yates                              | 1,951           | +1,689                 |
| 7-Rivers                           | 2,186           | +1,454                 |
| Queen                              | 3,136           | +504                   |
| Penrose                            | 3,412           | +228                   |
| Grayburg                           | 3,612           | +28                    |
| San Andres                         | 4,350           | -710                   |
| Delaware                           | 4,792           | -1,152                 |
| 1 <sup>st</sup> Bone Springs sd.   | 7,712           | -4,072                 |
| 2 <sup>nd</sup> Bone Springs dolo. | 8,192           | -4,552                 |
| Total Depth                        | 8,500           | -4,860                 |

2. Estimated Depths of Water, Oil or Minerals

A. Fresh Water

It is possible that fresh water zones could be encountered at depths up to 200 to 300 ft. Any zones encountered will be protected by the 13 5/8" casing set at 500 ft and by the 8 5/8" casing set at 2800 ft. Both strings of casing will be cemented to the surface.

B. Oil and Gas

Oil in the Second Bone Springs Dolomite is the primary objective of this well. It is also possible that shows of gas or oil may be encountered in other zones. Potentially productive horizons, as indicated by samples and/or electric logs will be protected by 5½" casing with cement up to 500 ft above the upper-most zone of interest.

## 2. The Operators Minimum Specifications for Pressure Control

- A. Exhibit F is a schematic diagram of the blowout prevention equipment. The annular BOP and rams will be hydraulically tested to 2750 psig (70% of the internal yield strength of the 8 5/8" 32 lb/ft. J55 casing) after nipping up and after any use under pressure. Annular and pipe rams will be operationally tested each 24 hr period and blind rams will be tested each time the drill pipe is out of the hole. Accessories to the BOP will include a floor safety valve and a choke manifold with a pressure rating equivalent to the BOP stack
- B. Testing Procedures:
1. All casing below the surface string will be tested to .22 psig/ft or to 1500 psig, whichever is greater, but not to exceed 70% of the internal yield strength of the casing.
  2. All ram type preventers will be tested to the rated working pressure of the stack or to 70% of the minimum internal yield of the casing, whichever is less.
  3. Tests will be performed at the time of installation, and prior to drilling out of the casing shoe, and at least every 30 days.
  4. The intermediate casing string will be tested prior to drillout by drilling cement to within 15-20 ft of the shoe, raising the drillstring off bottom, closing the pipe rams, and raising the casing pressure to the desired pressure.
  5. The production string will be tested prior to drillout or perforating by pressuring to the desired pressure.
- D. No over pressured formations are expected to be encountered, however drilling fluid levels will be visually monitored while circulating the reserve pit. A flow rate monitor will be installed in the mud flow line and fluid level indicators will be installed on the steel circulating tanks.

## 4. Proposed Casing and Cementing Programs

- A. All casing below the conductor will either be new and manufactured to API specifications or used and reconditioned to Grade "A" specifications.

| String | Size    | Wt/ft  | Grade  | Thread Type   | Setting Depth  | Condition           |
|--------|---------|--------|--------|---------------|----------------|---------------------|
| 1.     | 20"     | 52.73# | Sch 10 | NA            | 40' to 80'     | Used, Grd. A        |
| 2.     | 13 3/8" | 48#    | H40    | 8 rnd. ST & C | 500' to 600'   | New or Used, Grd. A |
| 3.     | 8 5/8"  | 32#    | J55    | 8 rnd. ST & C | 2,800'         | New or Used, Grd. A |
| 4.     | 5 1/2"  | 17#    | J55    | 8 rnd. LT & C | 0' to 900'     | New or Used, Grd. A |
|        | 5 1/2"  | 15.5#  | J55    | 8 rnd. LT & C | 900' to 6200'  | New or Used, Grd. A |
|        | 5 1/2"  | 17#    | J55    | 8 rnd. LT & C | 6200' to 8500' | New or Used, Grd. A |

### B. Cementing

1. The hole for the conductor casing will be cut with a rat hole digger and sufficient hole will be cut to drill into consolidated sediments. Since the casing comes in 40 ft lengths, either 40ft or 80 ft of hole will be drilled depending on the consolidation of the underlying sediments. After drilling is completed casing will be set on bottom and cemented to the surface with ready-mix

cement.

- 600'
2. The 13 3/8" surface casing will be set at approximately 500 ft in 17 1/2" hole using a guide shoe, insert float, and at least three centralizers. It will be cemented to the surface with 100% excess slurry consisting of a lead slurry of 165 sacks of Class 'H' cement + 3% D79 + 0.25pps of D29 mixed with 14.14 gal/sk of water for a weight of 12.0 ppg and a yield of 2.39 cf/sack, followed by a tail slurry of 205 sacks of Class 'C' Cement + 2% S1 mixed with 6.3 gal/sk of water for a weight of 14.8 ppg and a slurry yield of 1.34 cu ft/sack. 1" pipe and a 100 sack top out system will be available in the event that the cement does not circulate.
  3. The 8 5/8" intermediate casing will be set at approximately 2800 ft in 11" hole using a guide shoe, a float collar, and at least 6 centralizers. The slurry design will provide 100% excess and will include a lead slurry of 545 sacks of class 'H' cement + 3% D79 + 0.25 ppg of D29 mixed with 14.14 gal/sk of water for a weight of 12.0 ppg and a yield of 2.39 cf/sack followed by a tail slurry of 75 sacks of Class 'C' Cement + 1% S1 mixed with 6.3 gal/sk of water for a weight of 14.8 ppg and a yield of 1.33 cf/sack.
  3. If run, the 5 1/2" production string will be set at about 8,500 ft in 7 7/8" hole. A float shoe, a float collar, and sufficient centralizers to centralize the casing through all prospective pay zones will be run. Sufficient slurry will be pumped to cover the uppermost prospective zone with at least 500 ft of cement using at least 20% excess slurry. Assuming a Second Bone Springs Dolomite completion with casing set at 8,500 ft and a desired cement top of 7,000 ft (Bone Springs top estimated at about 7500 ft), the casing would be cemented with 245 sacks of 50:50 Poz:Class 'H' Cement: + 5% D44(bwow) + 2% D20 + 0.2% D59, mixed with 6.34gal/sk of water for a weight of 14.2 ppg and a yield of 1.35 cf/sack. The slurry would be preceded by 20 bbls of CW-7 Chemical Wash.
  4. Casing seats shown are at minimum depths and cement volumes are approximate. Actual volumes may vary depending upon hole conditions and actual casing setting depths.

5. Drilling Fluid Program

A. Fluid Characteristics by Interval

- 600'
1. 0 to 500 ft, Fresh water, native mud, gel, & LCM. ✓

|            |                |
|------------|----------------|
| Weight     | 8.6 to 9.0 ppg |
| Viscosity  | 27 - 45 sec/qt |
| Fluid Loss | NC             |
| ph         | 9.5 - 10       |
| LCM        | as needed      |
  2. 500ft to 2800 ft, Brine/ water, gel, caustic soda, lime, & polymer.

|            |                 |
|------------|-----------------|
| Weight     | 9.7 to 10.0 ppg |
| Viscosity  | 27 to 34 sec/qt |
| Fluid loss | NC              |
| ph         | 9.5 - 10.5      |

alerted crews. any unusual flows caused by over pressuring will be quickly detected and readily contained.

B. Abnormal Temperatures:

There are no known instances of abnormally high subsurface temperatures being recorded in the area and none are expected in this well.

C. Other Hazards:

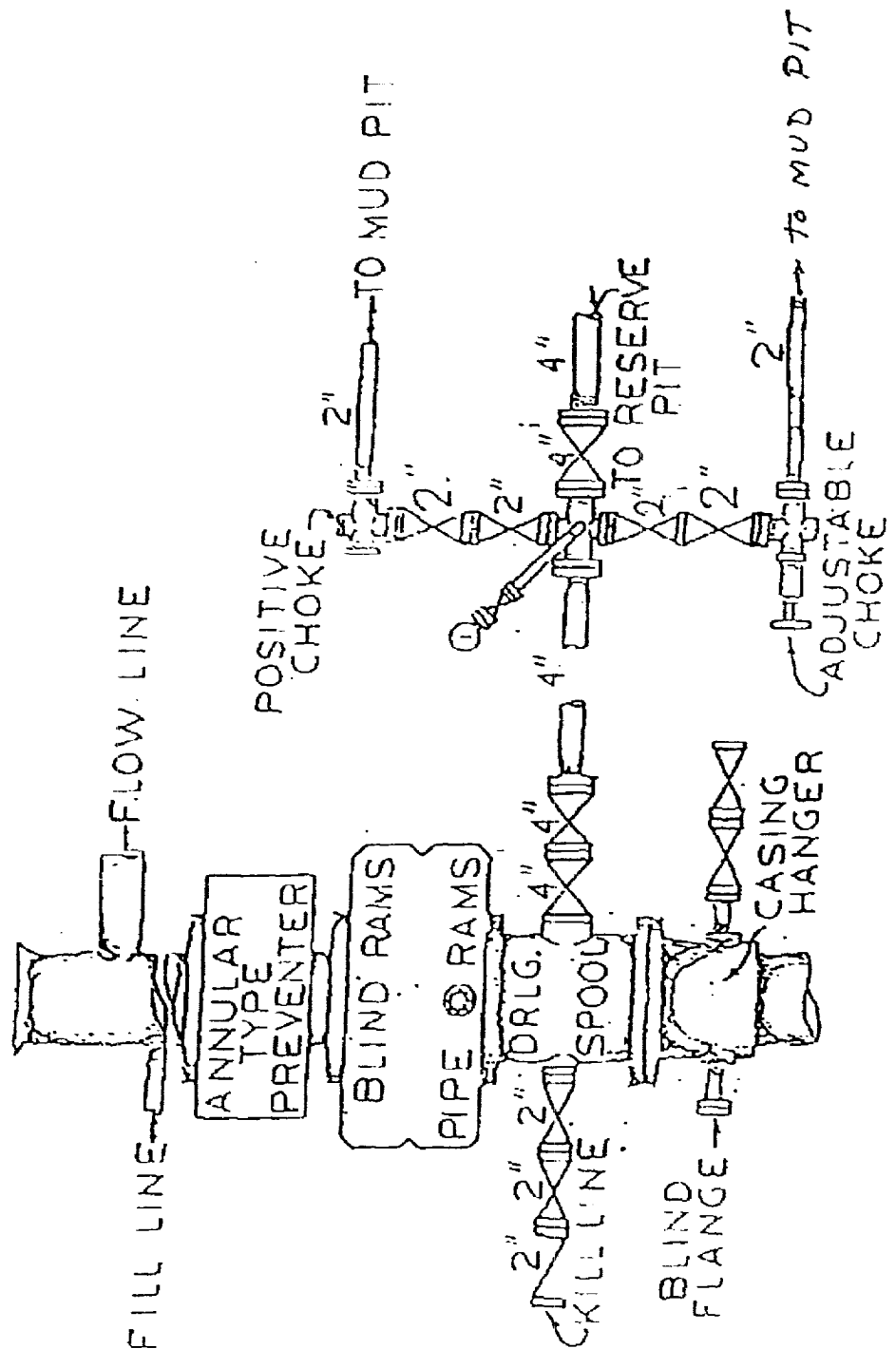
Hydrogen Sulfide has been considered and none is anticipated in any of the formations to be penetrated in this well. However, monitoring equipment will be installed and crew training completed prior to drilling out of the 8 5/8" casing to be set at about 2800 ft. In the event that Hydrogen sulfide is encountered, a Hydrogen Sulfide Drilling Operations Plan is included as Exhibit "J".

8. Anticipated Starting Date and Duration of Operations

Dirt work operations will commence as soon as drilling contractor selection is completed and the required permits have been received which is expected to be mid to late December, 2000. Location and road construction will require about 7 working days. Drilling operations will require about 20 days and completion operations and surface facilities construction are estimated to require an additional 30 days.

**Exhibit "F"**  
**KCS Medallion Resources, Inc.**  
 Typical BOP Equipment Arrangement

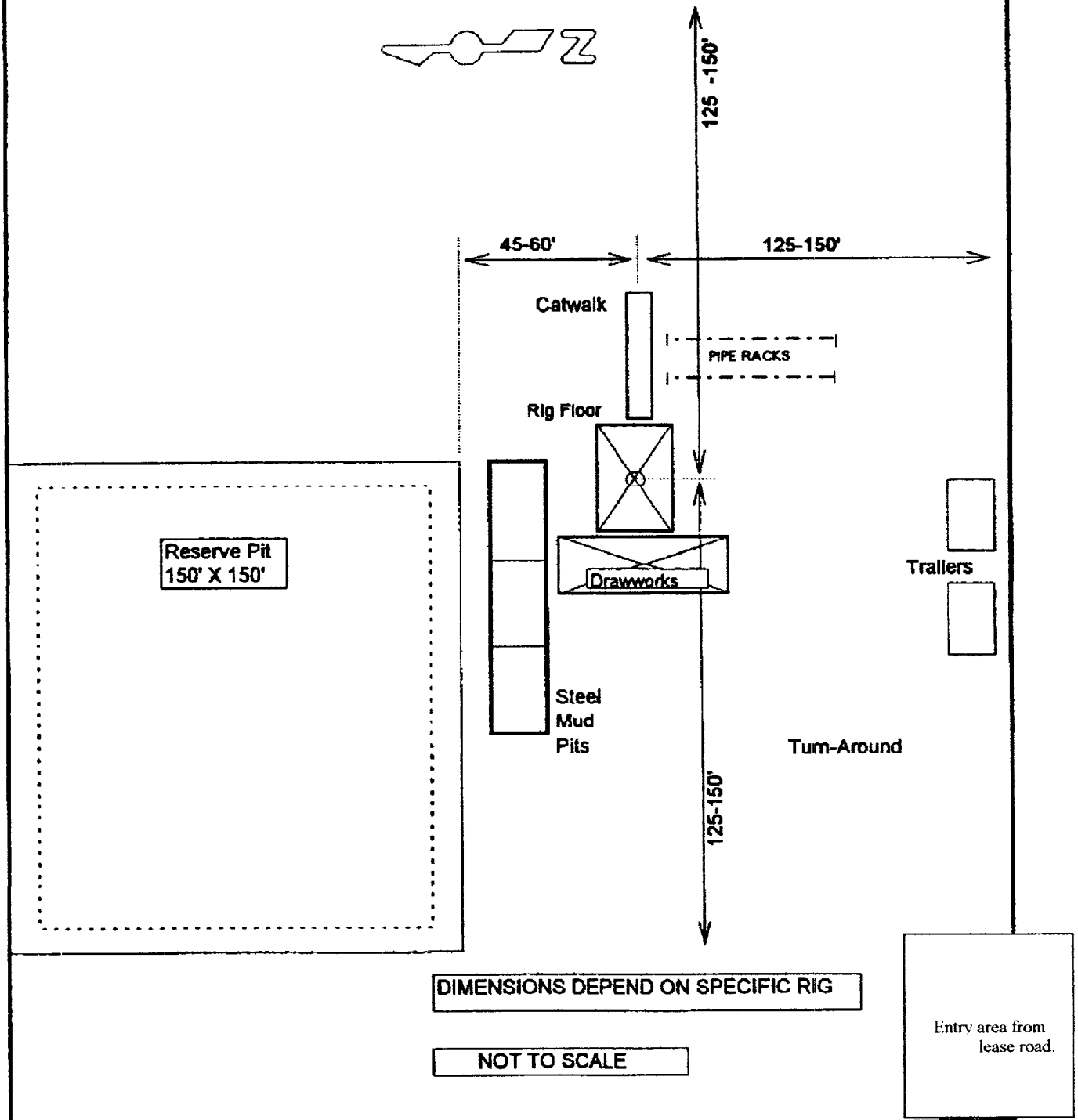
All BOP Equipment to be 3000 psig Working Pressure or Greater



# Exhibit "G"

## KCS Medallion Resources, Inc.

### Typical Wellsite Layout



[illegible]

Proposed Well  
Shugart West "19" Federal No. 11  
330 ft FNL and 990 ft FEL  
Sec. 19, T18S, R31E  
Eddy County, NM

## **Exhibit "J"**

### **KCS Medallion Resources, Inc.**

#### **Hydrogen Sulfide Drilling Operations Plan**

##### **I. Hydrogen Sulfide Training.**

- A. All rig crews and company personnel will receive training from a qualified instructor in the following areas prior to penetrating any hydrogen sulfide bearing formations during drilling operations:
1. The hazards and characteristics of hydrogen sulfide (H<sub>2</sub>S).
  2. The proper use and maintenance of H<sub>2</sub>S safety equipment and of personal protective equipment to be utilized at the location, such as H<sub>2</sub>S detection monitors, alarms, warning systems, and breathing equipment. Briefing areas and evacuation procedures will also be discussed and established.
  3. Proper rescue techniques and procedures will be discussed and established.
- B. In addition to the above, supervisory personnel will be trained in the prevention of oil and gas well blowouts in accordance with Minerals Management Service Standards Subpart -0- 250 - 212.

Prior to penetrating any known H<sub>2</sub>S bearing formation, H<sub>2</sub>S training will be required at the well site for all rig crews and company personnel that have not previously had such training. This instruction will be provided by a qualified instructor with each individual being required to pass a 20 question test regarding H<sub>2</sub>S safety procedures. All contract personnel employed on an unscheduled basis will be required to have received appropriate H<sub>2</sub>S training.

The Hydrogen Sulfide Drilling Operations Plan will be available at the well site during drilling operations.

##### **II H<sub>2</sub>S Safety Equipment and Systems.**

- A. All H<sub>2</sub>S safety equipment and systems will be installed, tested, and operational when drilling operations reach a depth approximately 500 ft above any known or probable H<sub>2</sub>S bearing formation. The safety systems to be utilized during drilling operations are as follows:
1. Well Control Equipment:
    - a. Annular BOP with a properly sized closing unit so as to accommodate all pipe sizes in use.
    - b. A choke manifold with a minimum of one remote choke.
  2. H<sub>2</sub>S Detection and Monitoring Equipment:
    - a. Three(3) H<sub>2</sub>S detection monitors will be placed in service at the location. One monitor will be placed near the bell nipple on the rig floor; one will be placed at the rig substructure; and one will be at the working mud pits or shale shaker. This monitoring system will have warning lights and audible alarms that will



- alert personnel when H2S levels reach 10 ppm.
  - b. One Sensidyne pump or equivalent with appropriate detection tubes will also be available to perform spot checks for H2S concentrations in any remote or isolated areas.
- 3. Protective Equipment for Essential Personnel.
  - a. Four(4) five minute escape packs located at strategic points around the rig.
  - b. Two(2) thirty minute rescue packs to be located at the designated briefing areas
- 4. Visual Warning System.

The visual warning system will consist of the following:

  - a. Three(3) wind direction indicators.
  - b. Two(2) condition/warning signs which will be posted on the road providing direct access to the location. One sign will be placed at the point that the access road leaves the public road; the second sign will be placed where the access road enters the location. The signs will contain lettering of sufficient size to be readable at a reasonable distance from the immediate vicinity. The sign will inform the public that a hydrogen sulfide gas environment could be encountered at the location

Exhibit "J" (cont.)

KCS Medallion Resources, Inc.  
Hydrogen Sulfide Drilling operations Plan  
Typical Wellsite Layout

