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Minera Frisco S. A.
Oro Grande

COUNTY:	COUNTRY:	STATE:	NAME OF PROPERTY:
Otero	U. S. A.	New Mexico	Warnock Mine Adycupb Alamo & Alamo Extension

DISTRICT OR AREA:	METALS:	ACCOUNT NUMBER:	NUMBER:
	Pb, Cu, Ag		

GENERAL DESCRIPTION: sandstone - Pb, Cu, Ag

EXAMINED BY:

DATE:

BRIEFED BY:

DATE:

STATUS: for lease or sale

TYPE OF DEPOSIT:

GEOLOGY

LOCATION:

ELEVATION:

LAT: LONG:

ACCESS: Road from Alamogordo

DEVELOPMENT: dormant
not operative since 1930

MINERALIZATION:
Syngenetic Pb - Ag - Cu mineralization

PROPERTY & OWNERSHIP:
12 claims owned George Warnok'
additional 42 claims
Mr. Lester Millhouse
High Rolls, New Mexico
(505) 682-2790
P.O. Box 2 (88325)

GEOPHYSICS:

AERIAL PHOTOGRAPHS:

GEOCHEMISTRY:

TOPOGRAPHIC MAPS:
Alamogordo, N. M.
1/62,500

MAPS & REPORTS: attached

MINERAL PROSPECT DEPOSIT DATA SHEET

ESSEX INTERNATIONAL, INC.
1704 WEST GRANT RD., TUCSON, ARIZONA 85705
PHONE (602) 624-7421

BY:

DATE:

NAME OF PROPERTY:	NUMBER:

REFERENCES:

PRODUCTION & RESERVES	SAMPLES:
METALLURGY:	ENGINEERING:
FACILITIES:	EXPLORATION POSSIBILITIES:

ADDITIONAL INFORMATION OR SKETCH MAP:

Mrs. W. R. Flournoy (Dorthea)
1002 Princeton Ave
Modesto, California 95350.
Tel. 209-522-6556.

Want to sell, lease - "Get rid of property"

REPORT ON THE WARNOCK MINE

Sacramento Mountains, Otero County, New Mexico

NAME:

The Warnock Mine as it is now known was formerly called the Hershberger from the name of the original locator.

LOCATION:

The Warnock Mine is located on the west slope of the Sacramento Mountains - Sec. 30, Twp. 16, South Range 11 East - Otero County, New Mexico, approximately five miles in an air line from Alamogordo, New Mexico.

OWNERSHIP:

The property is owned by George Warnock of Alamogordo, New Mexico, and is held by location and assessment work. The property consists of 12 claims Alamo 1 to 12.

TRANSPORTATION:

Alamogordo is on the main line of the Southern Pacific Railroad, 85 miles from El Paso, Texas. The mine is 12 miles by road from Alamogordo, 7 miles of which is highway to Cloudcroft and the remaining 5 miles partly up a wash and the balance along the north side of Dry Canyon.

The present road can be put in good shape for a few hundred dollars. Hauling ore costs should not exceed $2.25 per ton.

The practical road outlet for the Warnock Mine is through Caballero and Alamo Canyons. The town of Alamogordo has built and maintains a pipe line up Alamo Canyon. Caballero joins Alamo Canyon about two and one-half miles from the mine. By constructing a road up Alamo Canyon to a point near the mine and a wire rope tramway 400 to 600 yards long the transportation difficulties can be practically eliminated. The cost of the road construction and tramway will not be excessive.

TIMBER:

The Sacramento Mountains are in a Forest Reserve and there is a considerable quantity of white pine and spruce timber within a few miles of the mine. This timber is suitable for stulls and can be delivered to the mine at low cost.

mine has gone under various names: Warnock, Stewart-Holmes, A[illegible]pb, and now called Alamo.

POWER:

The Louisiana Power Company is building a power plant at Alamogordo, generating steam with refuse from a large sawmill and expects to market power in the vicinity.

EQUIPMENT:

There is no equipment on the property except several shacks and several hundred feet of 12 and 16 pound rail.

GENERAL GEOLOGY:

According to Professional Paper #68 "Ore Deposits of New Mexico," the Sacramento Mountains are mainly Paleozois Sedimentaries. The sandstones in which the ore occurs are typical "Red Bed" sandstones except that no carbonaceous material was observed.

GEOLOGY:

The flat or flat dipping sandstone beds in which the ore occurs at the Warnock Mine are of varying thickness from a few inches to several feet. The outcrops are mostly obscured by the decomposition of the soft shale debris however, mineralized float was found on top of the ridge at the camp all the way down the mountain side to the Federal Tunnel, which is some 50' vertically above the lowest sandstone bed. This would indicate that mineralization extends for some 300' vertically. No igneous rocks were observed.

MINERALIZATION:

The main mineralization is galena, finely distributed through the sandstone with occasional bunches of nearly solid galena. There are some copper carbonate minerals near the outcrop at the main workings which led to the location of the property.

Lead mineralization of this sort is unique as far as I know. The sandstone is similar to the Red Bed Copper ore and the distribution of the galena is about the same. There are no dikes or quartz seams or any apparent source of mineralization solutions. The mineralization seems to be concentrated in certain channels. The extent of these channels cannot be determined because of the limited development work. One sample, 8.2% Pb. in raise in upper north drift 8' wide.

The mineralization is not confined to the particular bed on which most of the development work has been done. This is indicated by samples 755, 8' wide 0.3% Pb., 756 4.3' wide 9.9% Pb. and 757, 5.5' wide 6.95 Pb.

DEVELOPMENT:

The development work on the property consists of an old tunnel and incline and a new tunnel at a lower elevation connecting with the incline. This work is on the west end of the property. A number of cuts and short tunnels expose the outcrop of the lower beds to the east of the property where tunnels known as East Tunnels No. 1 and 2 are located. East Tunnel No. 1 is driven close to a fault and follows the course of a small side canyon.

It is remarkable that no raises or winzes have been driven at any point with the idea of discovering whether any of the other beds are mineralized. The location and extent of the workings are shown on map.

SAMPLING:

My first inspection of the property lead me to believe that previous sampling had been sketchy and results probably low due to lack of depth in the sample cuts. For this reason I resampled the incline, and drifts where fair mineralization was indicated, at 20 foot intervals. The cuts or channels are 3" wide and 3/4' to 1" deep. In cutting sample channels we discovered that the heavily mineralized material is much harder and tougher than the lightly mineralized material.

ORE:

The average width lead content of 28 samples taken in the incline and stopes adjacent is as follows: width 6.1' - Pb 7.4%

	No.	Width	% Pb	Pb x Width
1	763	5.0	9.0	89.5
2	758	9.0	9.7	87.3
3	754	5.8	17.0	98.6
4	759	5.9	4.9	28.9
5	755	8.0	0.5	2.4
6	753	8.0	9.2	73.6
7	752	4.3	4.9	21.0
8	760	5.0	2.8	14.0
9	750	6.0	10.3	61.8
10	751	5.3	6.8	36.1
11	749	6.3	4.4	27.7
12	748	7.5	12.8	96.00
13	768	5.0	0.3	1.5
14	746	6.0	2.5	15.0

	No.	Width	% Pb	Pb x Width
15	745	4.5	8.4	37.8
16	744	5.0	3.4	17.00
17	743	4.7	5.1	23.9
18	742	5.5	0.5	2.7
19	740	5.3	0.1	0.5
20	741	3.4	3.6	12.2
21	739	7.7	10.3	79.3
22	723	5.3	0.9	4.8
23	767	8.0	7.5	60.0
24	725	8.9	21.8	105.0
25	724	8.3	4.2	34.0
26	726	6.5	8.8	57.3
27	727	5.0	18.8	94.0
28	728	5.2	10.9	60.4
		170.9		1203.2 TOTAL

AVERAGE 6.1 7.4% Pb.

The amount of ore developed is pretty indefinite due to lack of lateral development.

Samples in East Tunnels 1 and 2 indicate that there is ore that could be developed.

DUMPS:

At the Federal Tunnel the ore taken from development was dumped separately. I measured this dump and cut a trench the full length of the flat surface. The resulting sample contained considerable fine material and is for that reason probably a low average. I estimate three hundred tons and the samples gave the following results:

% Fe	Ozs. Au	Ozs Ag.	% Pb	% Cu	% Sio2	% Zn
2.9	Trace	0.2	4.9	0.23	67.5	1.6

At the upper tunnel is a large dump which is the result of the first mining which was for copper. I estimate 600 tons in this dump. A half ton sample from four carefully broken and cut gave the following results:

% Fe	Ozs. Au	Ozs Ag.	% Pb	% Cu	% Sio2	% Zn
4.4	Trace	0.2	9.4	1.67	58.5	2.7

On the dump there is a pile of fifty tons; a grab sample of this pile ran 9.8% Pb and 0.45% Cu.

In addition to the above there are several smaller dumps which will probably average 9% Pb and total 300 to 500 tons.

MINING:

Mining will be simple and cheap with the proper equipment and preparation.

While the deposit has a flat dip the difficulty of mucking in the stopes can be overcome by slushing into chutes with small air hoists, the dip being suitable for this method of loading. Little timber other than an occasional stull will be required. The roof stand well and the ore can be mined with practically no dilution from falling slabs from the roof. The ground is even and massive and though it is fairly hard will drill well and break well.

With the proper equipment and preparation and a definite plan mining costs should not exceed $2.00 per ton.

POSSIBILITIES:

The main and immediate possibilities at the Warnock Mine are as follows:

It is in development more by driving raises and winzes from existing workings at the West End. Second: In drifting on the ore showing at the East Tunnels and the exploration of the other beds than those exposed by present tunnels.

CONCLUSIONS:

In view of the ore showing and the possibility of developing a large tonnage of milling ore, it is my conclusion that the Warnock Mine is certainly worthy of development.

Signed:

W.L.B. Jenney

EARTH RESOURCES COMPANY MEMO

February 12, 1971

TO: Bill Cole

FROM: Dan Gorski

RE: Oro Grande Project

Introduction:

The general geology and history of mining in the Oro Grande district is covered in the enclosed NMBM Bull. 82 by Schmidt and Craddock.

The first serious exploration for copper was done by Anaconda in the years 1955-1957. Anaconda mapped the area geologically at 1"=2,000' and conducted an IP survey. Their interest settled on Sec. 3, T22S, R8E where mineralization was strongest and the IP showed a donut shaped anomaly (Map 1). They drilled two 45° holes (A1 and A2) and dropped the property.

The next exploration was done by Superior Oil Company in 1964-1965. Superior also ran a detailed IP and magnetic survey over the entire range which outlined two significant anomalies, one was the donut shaped area in Sec. 3, the other a smaller one in Sec. 10. Superior drilled 9 holes;all but one of them in the mineralized area centered in Sec. 3.

The holes showed that the monzonite porphyry was weakly altered and low in copper with the values occurring in fractures. Some of the skarn beds had ore grade intercepts but with over-all grades too low. Holes OG-1, 3 and 11 intersected intervals of garnet skarn with high pyrite and interesting copper values. Superior dropped the project in 1965.

Work done since 1965 consists of geologic mapping and sampling done by Kennecott in 1967, mapping and underground sampling done by Minera Frisco S.A., and work done by the owners. The owners, B.O.W. Corporation, attempted to initiate a leaching operation during which time some Air-Track holes were drilled in the providence pit area and more geologic mapping was done by a consulting geologist, Phil Beckley.

In January, 1970, Beckley, an acquaintance of mine, brought the property to my attention. I first visited the area in February, 1970 and returned several times during March and April. In late April, ERC signed an agreement with the owners and began work.

The ERC Project

Work done by ERC during the past year consists of:

1. Staking and validating additional claims
2. Geologic mapping and sampling
3. 2,476' of diamond drilling

ERC's objectives were to test the possibility of copper mineralization of economic grade and tonnage occurring at open pit depths in the western part of Section 3. Potential hosts for the ore body were:

1. A cupola of late, mineralized porphyry in the areas of strong pyritic alteration
2. A bed of mineralized skarn such as that encountered in Superior's OG-3 hole or that exposed in the Lincoln workings

ERC drilled 5 diamond drill holes without encountering the grade of copper mineralization necessary to meet our objective.

Two areas of strong to moderate pyritic alteration are present in Sec. 3. One, the northern one, located mostly on the Providence and Barbara claims, is approximately 500' wide and 1,200' long and is roughly crescent shaped. The other, the southern one, is located on the Laura claim and is smaller although part of this area is covered by metamorphosed sediments. The two altered areas had not been tested by drilling, although one hole, Anaconda #1, had penetrated the northern edge of the northern area.

Within the northern alteration area, copper oxide mineralization is widespread in the Providence pit area, on various dumps west of the Providence pit, and along the western margin. On the Barbara claim, the rock contains much "live" limonite and some rock containing chalcocite is present in the old Turquoise workings. Alteration in the area has masked intrusive rock relationships but sulfide bearing rock on some of the dumps suggested that porphyry containing disseminated sulfide could be present in the alteration area.

The southern alteration area is much smaller but similar and poorly exposed owing to a capping of sedimentary rock. The sedimentary cap is metamorphosed and has evidence of strong sulfide mineralization.

Another area of interesting mineralization in skarn is present in the southwest part of Section 3 on the southern part of the Lincoln claim. Here a 10-12' thick bed containing strong magnetite-chalcopyrite-pyrite mineralization is exposed in some workings.

ERC #1 was drilled near the boundary of the Laura and Iron Mask claims in the southern alteration area. The oxidized part of this hole was a limonite stained porphyry similar to that in the Turquoise prospects on the Barbara claim. At the base of the oxidized zone some chalcocite was present although not enough to be significant. From 238-282', a 45' thick skarn was drilled which assayed about .60%

copper. All mineralization seen in this hole was in fractures and the skarn on the average was of the chlorite actinolite facies with some reaching the diopside facies; garnet was not abundant and there was little magnetite. Below the skarn, the drill hole entered weakly altered porphyry with minor sulfides confined to fractures and stayed in this rock to a total depth of 405' where the hole was terminated.

ERC #2 was drilled in the northeastern edge of the southern alteration zone in the same direction as ER #1 and penetrated roughly the same rock sequence; that is altered porphyry with .1 to .3 Cu, an approximately 60' thick skarn and the lower part of the hole in relatively barren porphyry.

ERC #3 was drilled to test the southwestern part of the larger altered area depth and to prove the continuation of the skarn encountered in ERC #1, and #2. Almost all of this hole was in barren chloritized monzonite porphyry although the last few feet penetrated the (?) skarn block containing some copper values in the .1-.3 range.

ERC #4 was drilled to test the potential of mineralized skarn below the magnetite-copper showing on the Lincoln claim. This hole was in tactite, marble and skarn all the way and contained poor copper values although mineralization was present in broken zones. Rank of metamorphism was moderate to high (chlorite--wollastonite?) although garnetization was generally weak. Some strongly garnetized rock was present in the upper part of the hole but wasn't mineralized.

ERC #5 was placed to test the middle of the northern altered zone. This hole was all in porphyry, mostly weakly altered. Weak sulfide mineralization was confined to several fractured zones.

Conclusions:

1. No body of late porphyry containing disseminated copper mineralization is exposed in Section 3 and if such a body is present, it is below open pit depths, very likely below 1,000'.

2. The main mass of intrusive rock exposed in Section 3 falls within the propolytic or chloritic alteration facies with some of the broken zones grading into the argillic facies. Propolytic alteration took place while the rock was in a semi-molten state but the argillic alteration appears to have taken place after the rock was solid and is restricted to fractured zones. The propolytic facies minerals are chlorite, epidote, and calcite with allophane and slight incipient clay formation. The chlorite and epidote largely replace mafic minerals, the calcite occurs as blebs and masses. The feldspars are slightly altered to allophane and clay. The sulfide content in the propolytic facies is restricted to veinlets which may or may not contain quartz. The .1 to .01 copper values in most of the core in this type of rock come from these veinlets. In the more fractured areas, argillic alteration is present but not abundant; some of the argillic alteration may be supergene. Sulfides and quartz are more abundant in the fractured areas. Primary copper values in these broken zones are in the .2-.35 range. Some MoS_2 is present in the quartz veinlets.

3. The skarns and tactites encountered were generally unfavorable with sulfides occurring as fracture fillings. Copper values in these zones range from .2 to .7%. Rank of metamorphism is generally low, mostly in the chlorite-actinolite facies but some diopside facies is present. The rocks that we drilled appear to have been mostly clean limestones before metamorphism and didn't have the S_1O_2 and Al_2O_3 available for the heavy garnetization necessary for volume loss required to make a favorable host rock for skarn copper.

4. The altered area in Section 10, the cemetery area, is the same type of mineralization but is smaller and less intense and does not warrant further interest.

5. The fairly high grade oxide mineralization in the Providence pit area, the chalcocite gossan like rock on the Barbara claim and the gossan like rock encountered in the first 100' of ERC #1 are probably the remnants of a chalcocite enriched zone that are now being exhumed by the present cycle of pediment formation. This could explain the lack of any enrichment at the base of the zone of oxidation in our drill holes.

Potential

1. A late phase of porphyry containing disseminated copper mineralization (a true porphyry copper) at depth.

   The Jarilla Mountains' intrusion is large and multi-phase indicating the activity took place over a considerable time span with the differentiation of several types of rock ranging from syenodiorite to quartz monzonite with scattered occurrences of andesite and basalt. The parent magma was of diorite-monzonite composition which is the rock type most favorable for the formation of porphyry copper deposits. (The alkalic rhyolite porphyry assemblage of the typical moly porphyry is not present and any earlier thoughts on the presence of a moly deposit here are dispelled.) Considerable amounts of copper bearing solutions have passed through the rocks in Section 3. The absence of a minable copper deposit here is owed more to the lack of a favorable host rock than the lack of a source of copper.

   If such a mineralized porphyry is present, it is likely to be deep, certainly in excess of 1,000'.

2. Copper bearing skarn deposits

   The emplacement of a high grade skarn copper deposit at Oro Grande depends on the coincidence of three things.

   A. The presence of an impure limestone which will undergo a high volume loss during metamorphism.

   B. The temperature-pressure regime favorable for chalcopyrite deposition.

   C. A conduct or channelway for the introduction of the copper bearing solutions.

All three of these factors are present in the Oro Grande district but the point of their coincidence (if it exists) hasn't been found. A favorable impure limestone is present near the base of the Permian section. No attempt has been made to map these sediments and project them into the mineralized area. The correct P-T regime for the deposition of chalcopyrite did exist in the district as witnessed by copper mineralization in fractures and the presence of diopside in skarns cut by our drill holes. Channelways for the introduction of mineralizing solutions are present in the form northeast trending fractures which can be mapped at the surface and have been encountered in drill holes.

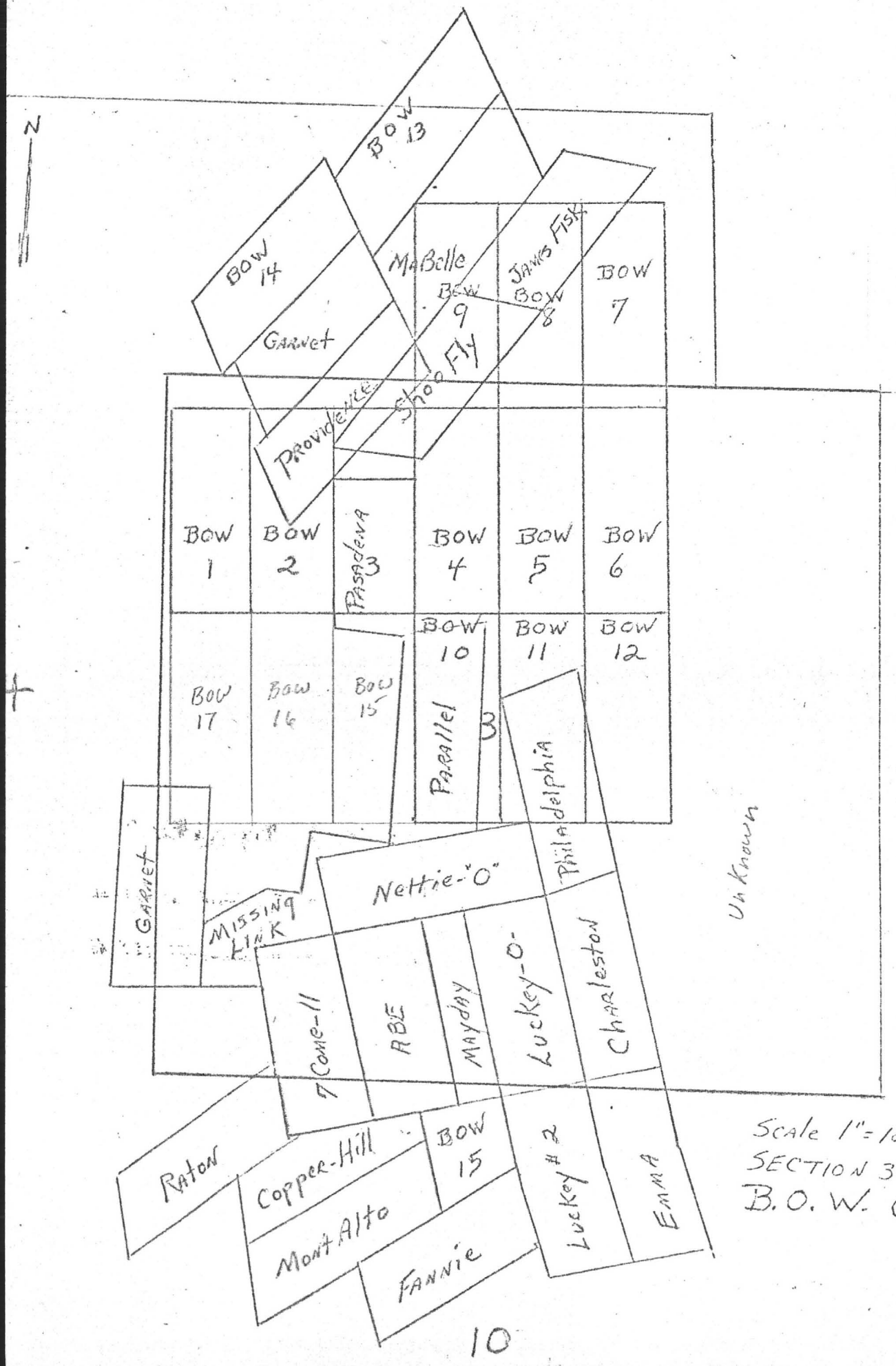
Superior drill holes OG-3 (300'-500'), OG-11 (770'-830') and OG-1 (at several intervals) penetrated skarns with high percentages of magnetite and pyrite which indicate that two of the conditions, host rock and channelway, had been met but that magnetite and pyrite rather than chalcopyrite were the stable phases. Map 1 shows that these holes were either in or close to the donut shaped IP anomaly which may be partially in response to the magnetite-pyrite mineralization. Where the zone of chalcopyrite stability lies in respect to the magnetite is unpredictable; it can be on either side or within it. Proving or disproving its existence would require an extensive drilling program and is somewhat hampered by the lack of detailed petrography of the Superior core.

Recommendations:

Although this property still has fair potential, the exploration would be expensive and the targets definitely not within open pit depths. I don't recommend ERC doing any more work here.

DG/nm

Map 3



State section under lease to Alamogordo man

2

Scale 1" = 1000'
SECTION 3 AREA
B.O.W. Corp.

06-F1-ODH

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: Superior - Anthony

STARTED: 8/21/64
COMPLETED: 10/15/64
GEOLOGIST: A.J. Ferry
TOTAL DEPTH: 1006.0
TYPE DRILL:
DRILL CONTRACTOR: E.J. Longyear

BEARING:
INCLINATION: VERTICAL
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
22	221	230	8.9	99	15	300		(1622)		226-236	Qtz monz porp.	Lt. gn to gray; v/gar epi stgs up to 1/4" tk.; Loc sctd bkld. 3-5%; sm epi blebs; Sil & K do - Fracs 1-2; Bkg 0-1.; Py. 2-3% (rar). prim as frac fill - sm w/ Epi blebs.	
23	230	240	9.6	96	40	300		(1623)		236-246	- sm - to 238.5	w/hvy (active) lim-epi 30.- 235 - 238.5 where ck porp text obl.; Bkg 1-2; Frac 0-1. Gar. epi xlls, gn blebs & Fe Mag xls abu into frac'ts - Py 1-2 % thru box.	
24	240	250	9.5	95	60	225		(1626)		246-256	Qtz monz. porp.	w/hvy gar. xlls cont to 248 - then become Knife edge in tkness; Epi 5-10% & sm. gar as blebs beyond 243; Bkg 0-1, Fracs 1. Py < 1/2 % - Sil 2-3.	
25	250	260	9.5	95	10	225		(1621)		256-266	= do =	w/sm. gar stgs thru box; Fnr text. dkr grn rx 250-251.5; and 257.5 - 258.5; Fnr rx app not dk but more xxll sil 30 w/ hvy Feldsp (prim bkld.). Py 1% or <. K-felds? pink - prob. prim: v/hvy 251.8-7. except for dkr secs; centers lk often gn. (ck w/thin sec).	Split f/ Lacy 257 (thin section)
26	260	270	9.7	97	40	225		(1628)		266-276	Q. monz porp. & qmp. bree.	263.5-264. Brec. 265 - 266.8 & 268 - 269.6; Lt. gn. dense groundmass in bree. 30s; Frags to 1" incl - buff chert? bkld aggregates etc.; Fe Mag and gar xlls cut bree.; bree well Sil 3-4; hvy Calc. 262 - 262.5; Py. 10%-15% 262 - 264; Remainder core. 2-5% Py	

Hole 06-F1-ODH Sheet 5 of

OG #1 DDH

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: NEW MEXICO
COUNTY: OTERO
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: Superior - Anthony

STARTED: 8/21/64
COMPLETED: 10/5/64
GEOLOGIST: A. J. PERRY
TOTAL DEPTH: 1006.0
TYPE DRILL:
DRILL CONTRACTOR: E. J. Longyear

BEARING:
INCLINATION: VERTICAL
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
27	270	280	9.4	94							Qtz monz porp w/ tactite.	Porp as above - gngy; tactite 271.5 - 276 & hvy	
												gar. stgs - 277.3 - 278; up to 20% Fe Mags;	
												<1% Py.	
28	280	289	9.0	100	125	300			1629	276-286	= do =	Hvy tactite - 281 to 283; 287 to 288.5; trn gar fills - 15° - 11	NX to Bx @ 285'
												frac sets and to lesser extent subs offshoots;	TR Cpy - 281.5 - 283
												281.5 - 283 - 10-15% Py, TR Cpy in hvy. gar. zo.	
29	289	298.5	9.5	100	20	300			1633	286-296	= do =		
												Hvy tactite 294.5 to 297; Bn of met to 295;	TR Cpy 298.5
					125	300			[illegible]	296-301		10-15% Py 295 to 297; 1%+ Py 297 - 298.5; Tr Cpy 298.5.	
												Porp. 15-20% Hbld randomly orient.	
30	298.5	308	9.5	100	20	4200 0.16%			1635	301-310	= do =	Hvy tactite - 291.5 - 308; 50-70% Py - 301.3 to 303.9	1-3% Cpy 301.3 - 303.9
												1-3% Cpy sm interval -; Sm. wrng Calc fillings in wrng	Sp6 - 302.1
												vnlts and patches;	
31	308	317	9.6	100+	30	4800 0.32%			1636	310-317	Tactite	5-15% Py 308 - 313.5 - 1+% Cpy same int.	1+% Cpy - 308 - 313.5.
									SEE SPEC. RESULTS			Est ½% Cpy. 313.5 - 317 - Py - 2-5% sm. int.	½ " " 313.5 - 317
												Bor @ 309.5, & 313.5; Cov @ 311 (15-20% Calc. fillings	
32	317	327	9.6	96	15	225			1637	317-327	Qtz monz. porp. w/ occ. Tactite vnlts & brbs.	and wrng blotches).	
												Gngy w/ 20+% Fe mags (prime hbld - scatd thru rx; Sil 1, K-0, Ag - 1-2.	
												TR Py - thru box; no Cpy noted.; Sil incr to 3 @ 325.	
33	327	336	9	100	20	1200			1638	327-337	Qtz monz porp & tactite	Hvy tactite - 329.6 to 334.5. Porp. r pale gngy rx, Sil 2-3.	
												<1% Py, TR Cpy @ 329.6 & 333.9.	TR Cpy 329.6 - 333.9

Hole OG #1
Sheet 6 of

OG #1 - DDH

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Old Grande
PROPERTY: Superior - Anthony
OG #1 - DDH

STARTED: 8/21/64
COMPLETED: 10/5/64
GEOLOGIST: A.J. Perry
TOTAL DEPTH:
TYPE DRILL: E.J. Longyear
DRILL CONTRACTOR:

BEARING:
INCLINATION: Vertical
COORDINATES:
ELEVATION: 4543.1' (Collar Elev.)

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	ASSAYS Cu					ROCK TYPE	DESCRIPTION	REMARKS
	0	16	0	—							Alluvium		
1	16	27	7.8	71	75	1200		(1601)		16-26	Qtz. mons. porp?	Equigranular and gross. Mosaic into near equig. rx except for pink to l. brn K-felts? patches and irreg. stgrs. Ex rubbly and all vugs and frac. surfs ox; maroon brn & yl brn stnd faces and vugs: Fracs - 5 - 45-60° ∠. Py - fresh - 5-10% below 20'; locally 30%; conc. in irreg. pockets & blebs. Rx gn. gy, brn mottled color	No HCl reaction
2	27	35	8.7	79	225 0.065%	2400 0.13%		(1602)		26-36	do	Ex locally takes on pink tint below 29'. Rx gent. v. comp. less bot. Mo Sz prnc as thin frac fill - 29-35; Sm MoSz seems to be conc. near garnet blebs; Py 10-15%; locally heavier; occurs as ~~stgrs~~ frac fillings as well as blebs, sm. to 1/4" tk. Rx gn 1/2 gy mottled in color.	MoSz - 29-35 Sple @ 32' Fr below
3	36	43	9	91	40	1300		(1603)		36-46			
4	43	53	7.7	77							Qtz. mons. porp.	do to 40'. Below 40': qmz - 1.ay; Sis 1-2; dry of play 2; Bkg 1 below 40; Frac 1, well healed; Py chiefly and low frequency;	Qmz - good tint begins @ 40' @ 40' Qmz interwoven w/Py? (Sple)
	SEE SPEC. RESULTS				20	400		(1604)		46-56		Py 2-3% below 40'.	
											do	2% Py. tr. gross -; Py prnc as blebs & frac stgrs. - Sis - 1 - 2.; Arg. play 2.	
5	58	68	9.5	95	40	450		(1605)		56-66	do	K-feldspar - 2; as small irreg patches and veins; Py @ 58 - (Rarely) Sm small patches and stgrs & flags from 61. Py 3-5%. Few v. small patches Sp. to 2".	

Hole OG #1 Sheet 1 of

OG#1-DDH

THE SUPERIOR OIL COMPANY

MINERALS DIVISION

STATE: NEW MEXICO
COUNTY: OTERO
DISTRICT: SILVER HILL
PROJECT: OROGRANDE
PROPERTY: Superior - Anthony
OG#1-DDH

STARTED: 8/21/64
COMPLETED: 10/5/64
GEOLOGIST: A. J. PERRY
TOTAL DEPTH: 1006.6
TYPE DRILL:
DRILL CONTRACTOR: E. J. Longyear

BEARING:
INCLINATION: VERTICAL
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
6	68	77	9	100	40	600		1606		66-76 ✓	do	W/patches hvy FeMag spread throughout core esp. 72-75'; K feldspar cont 1-2; Sil 2, loc 3; Py 5m and 2%.	5m pink cast to 5m Py - still etched
7	77	87	9.5	95	20	600		1607		76-86 ✓	do →	w/5-10% FeMag & sch mills; small blotches Epi rept on FeMag patches. Py - 2%.	
8	87	97	9.5	95	15	1200		1608		86-96 ✓	do	w/K Sand 2-3 - . FeMag 20% w/sch mills. w/1/8" occ q stringers 87-88½'; 1" occ q veins on pcs @ 87'.	
9	97	105.5	9.5	95	15	300		1609		96-106 ✓		Py - 5% - loc 15%; fracs. 2; Py as occ q blebs and veins part hvy in sch and areas of FeMag Sil: 2-3	
											do →	8-10% FeMag; L gray mottled; sec - 3, w text poorly defined many areas; K - K somewhat less than in prev box - 1-2. Py - 1-2%; few 1m bleb sized blebs Cpy @ 105'. 5m seam tube mills in Py. Calc @ 105' on fresh L frac - open fill.	Cpy @ 105
10	105.5	116	9.5	95	10	300		1610		106-116 ✓	do	10-15% FeMags; L gray mottled & sch; in fracs; Sil 2; Mg 1; Py 1 on sch w/FeMags; pds 1-2%; 2-3% Py, prim w/sch & fracs. Fracs 1-2; 65-80° L. on fracs; minor Epi in FeMag areas.	

Sheet 2 of 2

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: NEW MEXICO
COUNTY: OTERO
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: Superior - Anthony

STARTED: 8/21/64
COMPLETED: 10/5/64
GEOLOGIST: A.J. PERRY
TOTAL DEPTH: 1006.0
TYPE DRILL:
DRILL CONTRACTOR: E.J. Longyear

BEARING:
INCLINATION: VERTICAL
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
11	116	126	9.8	98	20	600		(1611)		✓ 116-126	Qtz Monz porp.	Sm as above. but more Sil - 2-3	
												124-126; Coarse bon gar.; Py 1-2%	
12	126	136	9.3	93	30 0.010%	450		(1612)		✓ 126-136	- do -	Sil 3 to 135; blebs py @ 132.5; v.g. qtz (MoS2?)	132.5 spl. - [illegible]
												132-133.5; near vert fracs; Pos MoS2 @ 135'.	MoS2 @ 135.
												loc lg blebs gar do d° (red-brn). - Fracs. v-	
												gas with L - [illegible]	
13	136	146	9.5	95	15	150		(1613)		✓ 136-146			
											- do -	Sil. K continue. [illegible] hornfels. - Fe Mag 20+%	
												Py. ? 3%. - ? hairline fracs	
14	146	156	9.4	93	10	225		(1614)		✓ 146-156	- do -		
												<1% Py - lost to Fe Mag areas or hairline fracs.	
												Sil - Mag. 1-2; loc gray blebs sil - K alone 1.	
15	156	164	9.5	95	10	300		(1615)		✓ 156-166	- do -		
1/164 logged.													
~~16~~	~~164~~	~~173~~									Qtz Monz porp	Lt. gy, w/< 1% mels of Fe Mags; Sil 1, K - 0-1,	
												Mag. 1-2; Frac. 1-2 (well healed) Bkg. 0-1.	
												1%± Epi on Fe Mag rich areas.	
												@159.5 Mn. garn 1/8" + K (Frac fill); Py 159.5 → 162	
												5-7%. - v.l. elsewhere in box - Py prim	Cpy - 159.5 - 162
												is frac fill. > 1/2% Cpy some intervals.	> 1/2%.
												w/Py or sometimes as mels in Py.?	

Hole [illegible] Sheet 3 of [illegible]

OG#1-DDH

THE SUPERIOR OIL COMPANY

MINERALS DIVISION

STATE: NEW MEXICO
COUNTY: OTERO
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: Superior - Anthony

STARTED: 8/21/64
COMPLETED: 10/5/64
GEOLOGIST: A. J. PERRY
TOTAL DEPTH: 1006.0
TYPE DRILL:
DRILL CONTRACTOR: E. J. LONGYEAR

BEARING:
INCLINATION: VERTICAL
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	ASSAYS Cu				ROCK TYPE	DESCRIPTION	REMARKS
16	164	173	8.9	99	10	300		(1616)	✓166-176	Qtz Monz porp	sm as Box 15- but Sil 2-3; Gar fill high ∠ vnlts-1-2; Py >1%.; Fracs.-2; Ta? vnlt 172.5-173.	
17	173	183	9.9	99	15	900		(1617)	✓176-186	= do =	w/gn fib. mineral (ch(??) fill fracs-esp. high ∠ frac 179-181.5; Py gene >1%.; 179-183 - 2-3% Py. Bleb Cpy-172.5	Cpy 172.5
18	183	193	9.8	98	5	3000 0.26%		1618	✓186-196	do to 189'	— Sil.-3-4 (185-189); Py-3-5%. incr. 187-189 where cls sped fracs @ 30° are Qtz-Py filled.	
										(Gar-Py) 189-193' Rx. TACTITE.	K-loc 2- (primary?) w/sm chl, cal. - Py. 189-190.5 = 40-50% sm w/ Bor tarnish esp @ 189 Princ gn gar rx- 191-193.	Bor tarnish on Py poss minor sooty cal. 189.
19	193	203	9.8	98	5	450		(1619)	✓196-206	Tactite	(to 201.5). Py 1-2%.; Calc. loc 90%., Sph? Tactite vnlts out into porp 201.5 → 203.	
20	203	211	7.9	99	5	300		(1620)	✓206-216	Qtz Monz porp.	Gar-py vnlts cont to 205'; Py var. 5-10% to 205. Loc some hbld vtlly sctd; Cpy 1-2%, as mil alto prod; Rx princ gray- w/sm pink areas-K??. Bkg 2-3; loc sil good 4-3- K also?	
21	211	221	9.6	96	15	300		(1621)	✓216-226	= do =	Sil 2-3 cont.; 1-2% Py., to Cpy 217.5 Garnet vnlts cont	To Cpy 217.5

OG#1 DDH

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: NEW MEXICO
COUNTY: OTERO
DISTRICT: SILVER HILL
PROJECT: ORO GRANDE
PROPERTY: SUPERIOR - HUMPHREY

STARTED 8/21/64
COMPLETED 10/5/64
GEOLOGIST: A. J. PERRY
TOTAL DEPTH: 1006.0
TYPE DRILL:
DRILL CONTRACTOR: E.J. Longyear

BEARING
INCLINATION VERTICAL
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
105	980.7	989.1	8.4	95	75	360			1405	980-990	Sil Qtz Monz Porp	wh, blchd, w/ v.l. evid of porp text.; Tr to loc 1/2% Py; princ w/ knife edge thin Qtz vnlts & on high L frac surfs.	
106	989.1	997.5	7.8	93	175	240			1406	990-1000	= do =	sm; w/ Cpy & Bor? @ 995	OG#1 THIN SEC 10 ALT. ANDESITE POR
107	997.5	1006	75	88	200	240			1407	1000-1006	= do =	Minor MoS2 as thin frac fillings - Tr Py	

Hole Completed @ 1006.0
Capped & cemented.

2/11/65 CORE DELIVERED TO KM ANTHONY'S SHED AT OROGRANDE

Hole OG#1 DDH
Sheet 18 of

2

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: NEW MEXICO
COUNTY: OTERO
DISTRICT: SILVER HILL
PROJECT: RIO GRANDE
PROPERTY: Superior - OX

STARTED 9/17/64
COMPLETED
GEOLOGIST: A.J. PERRY
TOTAL DEPTH:
TYPE DRILL: MAYHEW 1000
DRILL CONTRACTOR: WHATLEY DRILLING CO.
WELL SITER - F. MACK

BEARING
INCLINATION VERTICAL
COORDINATES:
ELEVATION: 4610.4' (Collar Elev.)

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
	0	12	-	Plugged							Qal	No Sample Rec. - Hole cased & cemented to 12'.	
	12	15	Cuttings		40	600			1501	12-15	Qtz porp	Lt pink gy; sil 3; w/abu Fe ox coatings; Minor to an Cu stng.; Sm rem Feldspar phenos, Py 3+.	
	15	20			20	450			1502	15-20	- do -		
	20	25			20	450			1503	20-25	- do	Minor Py 2 casts.	
	25	30			20	450			1504	25-30	- do -	w/minor sericite; Py 2 casts & brn-blk coatings incr.; Cu stng minor to moderate.	
	30	35			40	450			1505	30-35	- do -		
	35	40			20	600			1506	35-40	- do -	w/sil down to 1-2; frac. coatings only minor now.	
	40	45			30	600			1507	40-45	- do -		
	45	50			40	900			1508	45-50	- do -	Sil 2-3; Py 2 casts & frac coatings 2-3.	
	50	55			20	600			1509	50-55	- do -	w/sm to Sacc hem	
	55	60			40	600			1510	55-60	- do -	Pink cast to samples here and above poss. K feldspar (secondary).	
	60	65			30	600			1511	60-65	- do -	w/minor frac coatings. - bkt laths, alt 2+ - 10-15%	

Hole OX-1
Sheet 6 of 7

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: NEW MEXICO
COUNTY: OTERO
DISTRICT: SILVER HILL
PROJECT: ORO GRANDE
PROPERTY: Superior - OX

STARTED: 9/17/67
COMPLETED:
GEOLOGIST: A. J. PERRY
TOTAL DEPTH:
TYPE DRILL: Mayhew 1000
DRILL CONTRACTOR: Whitley Drilling Co.
WELL SITTER - F. MACK

BEARING:
INCLINATION: VERTICAL
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
	65	70			20	900			1512	65-70	Qtz monz. porp.	Lt pink gy, w/moderate brn-blk frac. coatings. & sm. grn chl?	
	70	75			20	450			1513	70-75	-do-	w/definite chl dev. 2-3.	
	75	80			60	600			1514	75-80	-do-		
	80	85			20	600			1515	80-85	-do-	but frac ctgs 3- princ. blk & yl brn.	
	85	90			20	600			1516	85-90	-do-	Rx. lgy now- v/l. pk cast.	
	90	95			150	1000			1517	90-95	-do-	w/chl. continuing but altd. feldsps only 5± %.	
	95	100			125	1000			1518	95-100	-do-		
									SEE SPEC. RESULTS				
	100	105			225	600			1519	100-105	-do-	Sil loc 3+; Feldsps → chl. to 10+%. Frac. ctgs 3.	
	105	110			125	600			1520	105-110	-do-	Est Arg. thru hole to this pt 1-2.	
	110	115			60	900			1521	110-115	-do-		
	115	120			40	900			1522	115-120	-do-		
	120	125			40	600			1523	120-125	-do-	w/hbld. altn to ⊿.	
	125	130			40	450			1524	125-130	-do-		
	130	135			40	450			1525	130-135	-do-		

HOLE OGR-2
SHEET 2 OF

OS #2 RPH

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: NEW MEXICO
COUNTY: OTERO
DISTRICT: Silver Hill
PROJECT: ORO GRANDE
PROPERTY: Superior - Ox.

STARTED 9/17/64
COMPLETED
GEOLOGIST: A J. PERRY
TOTAL DEPTH:
TYPE DRILL: Mayhew 1000
DRILL CONTRACTOR: Whatley Drilling Co.
WELL SITTER F. MACK

BEARING
INCLINATION VERTICAL
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
	135	140			125	600			1526	135-140	Qtz mons porp.	Lgy tol brn - w/sm pink cast (secondary K?)	
												sil 1-2; Arg 1-2; Fe Mags to chl. 1-2 w/	Fresh Py.
												5+%. sm Fresh Py; Frac ctgs - mod.	
	140	145			20	600			1527	140-145	-do-	w/no sulfides	
	145	150			30	450			1528	145-150	-do	w/minor Py.	
	150	155			30	450			1529	150-155	-do-	No sulfides	
	155	160			40	450			1530	155-160	-do-		
	160	165			30	600			1531	160-165	-do-		
	165	170			75	1200			1532	165-170	-do-		
	170	175			75	1200			1533	170-175	-do-		
	175	180			30	1000			1534	175-180	-do-	Sil 1-.	
	180	185			20	900			1535	180-185	-do-		
	185	190			20	600			1536	185-190	-do-		Damp ground
	190	195			20	600			1537	190-195	-do-	Fe Mags → chl. 1-2; w/10-%	
	195	200			30	600			1538	195-200	-do-		

HOLE OS #2
SHEET 3 of

OG#2 - RPH

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: NEW MEXICO
COUNTY: OTERO
DISTRICT: SILVER HILL
PROJECT: ORO GRANDE
PROPERTY: Superior - OX

STARTED 9/17/64
COMPLETED
GEOLOGIST: A.J. PERRY
TOTAL DEPTH:
TYPE DRILL: Mayhew 1000
DRILL CONTRACTOR: Whatley Drilling Co.
WELL SITTER - F. MACK

BEARING
INCLINATION VERTICAL
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
	200	205			20	600			1539	200-205	Qtz monz porp	L.gy; w/ 10+% FeMags → chl 2; Sil 2+; arg 1; Rd brn to blk frac ctgs mod. No sulf. noted.	
	205	210	Rock bit (cuttings v. fn.)		40	600			1540	205-210	-do-		V. difficult to make Satisfactory geol. obs. w/ Rock bit cuttings. (Really wet ctgs)
	210	215			15	600			1541	210-215	-do-		
	215	220			15	300			1542	215-220	-do-		
	220	225			20	600			1543	220-225	-do-		
	225	228			15	900			1544	225-230	-do-		
(CORE)	228	230	1.5	50%	25	560			2292	228-231	Qtz Monz Porp	Mottled lgy-pink-gn; Sil 1; K-1-2; Arg 2; Mod py along num v. thin qtz vnlts (not mag noted) - FeMags 5±% w/conc. along Sm. qtz vnlts.	Py present in Rock bit section above? Lost? TS 229' PORP. DACITE
	230	235	Rock bit?		40	600			1545	230-235	-do-	w/ no Sulf noted	
	235	240			40	900			1546	235-240	-do-	-do-	
	240	245			40	900			1547	240-245	-do-		
	245	250			40	1000			1548	245-250	-do-		
	250	255			60	900			1549	250-255		Tr Py in few larger chips - none w/fines	←

Hole OG#2
Sheet 4 of

OG#2 RPH

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: NEW MEXICO
COUNTY: OTERO
DISTRICT: SILVER HILL
PROJECT: ORO GRANDE
PROPERTY: Superior - OX

STARTED 9/17/64
COMPLETED
GEOLOGIST: A.J. PERRY
TOTAL DEPTH:
TYPE DRILL: Mayhew 1000
DRILL CONTRACTOR: Whatley Drilling Co.

BEARING
INCLINATION VERTICAL
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
	255	260			40	600			1550	255-260	Qtz Monz porp	l.gy → l.brn; Sil est 2; Arg est 1-2; Minor Py vis 16X; has genl. app. of core @ 228-230.	Lutting's con't to be v.fn.
	260	265			75	600			1551	260-265	- do -	Tr Py	
	265	270			75	900			1552	265-270	- do -	- do -	
	270	275			60	1200			1553	270-275	- do -	Sil con't but loc 3; Frac ctgs. mod.	Occ. lg chips now
	275	280			60	1000			1554	275-280	- do -	Py - tr cont - Fold → chl. 2-3	
	280	285			40	900			1555	280-285	- do -	- do -	
	285	290			60	900			1556	285-290	- do -		
	290	295			150	1000			1557	290-295	- do -		
	295	300			75	1200			1558	295-300	- do -		
	300	305			125	1200			1559	300-305	- do -	Tr Py cont.	
	305	310			125	900			1560	305-310	- do -		
	310	315			75	1000			1561	310-315	- do -	Sil 2-3.	
	315	320			40	1000			1562	315-320	- do -	Mod Py - Sm Cpy	* Sm Cpy

Hole OG#2
Sheet 5 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Crossroads
PROPERTY: Superior - Oil.

STARTED: 3/17/5[illegible]
COMPLETED:
GEOLOGIST: M. L. Pecoy
TOTAL DEPTH:
TYPE DRILL: Wagner 1000
DRILL CONTRACTOR: Whetley Drilling Co.

BEARING:
INCLINATION: Vertical
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	ASSAYS Cu					ROCK TYPE	DESCRIPTION	REMARKS
	320	325			20	400			1563	320-325	Pt3 monz. porp.	L.gy - w/Sil 3; Arg 2; Feldsp 10% → chl. 1-2	Tr Cpy.
												Py some - Cpy Tr. - Marcasite?	
	325	330			20	320			1564	325-330	-do-	Tr Py	
	330	335			40	400			1565	330-335	-do-	Tr Py	
	[illegible]	[illegible]			40	0.13% 1200			1566	335-340	-do-	Minor Py; Minor Mag. Tr Cpy?	Tr Cpy?
	[illegible]	[illegible]			15	0.16% 1800			1567	340-345	-do-	w/ 10+% Mag; Sm Py, Tr Cpy.	
	345	350			15	0.12% 1200			1568	345-350	Tactite?	Mod [illegible]; L.gy [illegible] 10%	
												[illegible] Tr Cpy	
	350	350+	(CONTS)		15	0.48% 3300			1569	350-355	Pt3 Monz Porp	Mod gy - w/pink cast & Mottled gy;	
					25	1800			2293	350		Sil 2-3; Arg 1; Epi 1-2; Hem 15% → chl 1.	
					15	0.48% 3300			1570	350-355		Py abu - Est 2% in thin salt vnlts &	Tr Cpy
												as diss in feldsp rich areas.	
												Tr Cpy.	

HOLE DESTROYED
SAMPLE [illegible] 91

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: NEW MEXICO
COUNTY: OTERO
DISTRICT: SILVER HILL
PROJECT: OROGRANDE
PROPERTY: SUPERIOR — OX

STARTED 9/17/64
COMPLETED
GEOLOGIST: VAN SCHAACK
TOTAL DEPTH: 500'
TYPE DRILL: ROTARY — PERCUSSION
DRILL CONTRACTOR: WHATLEY

BEARING
INCLINATION VERT.
COORDINATES:
ELEVATION: 4610.4

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
	350	360			20	240			1571	355-365	QMP	SILICIFIED (2-3), 2% PY - EPIDOTE CHLORITE, FINE TEX.	
	360	370			15	180			1572	365-375	QMP	FINE GR. Si 2-3, ARG. 2, MINOR EPIDOTE + CHLORITE, TR PY	
	370	385			15	75			1573	375-385	QMP	FINE GR Si 1-2, ARG. 2, TR PY, $CaCO_3$ IN FRACS., PY IN FRACS + diss. EPIDOTE.	
	385	416			15	125			1574	385-395	QMP	FINE GR., Si 1, ARG. 2, MINOR EPIDOTE	
					10	30			1575	395-400		PY 1% MOSTLY diss	
	416	435			5	30			1576	400-410	QMP	FINE GR. Si 1-2 INCREASING TO 2 @ 435'	
					5	30			1578	410-415		TR PY MOSTLY diss. EPIDOTE	
					15	100			1580	416-425			
	435	490			15	100			1582	425-435	TACTITE	SOME MIXED QMP. ABUNDANT CHLORITE	
					40	360			1584	435-445		+ EPIDOTE + CALCITE + GARNET.	
					40	500			1586	445-455		PY 1%, 450'-455' PY 2-3%	
					25	200			1588	455-465			
	490	500			40	100			1590	465-475	QMP	SILICIFIED - Si 2-3, ARG. 2, TR PY	
					50	500			1592	475-485		TR MoS_2 $CaCO_3$ IN FRACS.	
					175	200			1594	485-495			
					100	200			1595	485-495			
					75	100			1596	495-500		SEE SPEC. RESULTS	

HOLE OG # 2
SHEET 7 OF 7

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

THE SUPERIOR OIL CO.
JAN 7 1965
MINERALS DIVISION
TUCSON

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY:

STARTED 12/29/64
COMPLETED
GEOLOGIST: E. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
1	496	504.5		85	30	500			3401	496-500	QMP	Argillization 3-4, SiO_2-2-Loc 3 Gouge Zone @ 502.5, Tr Magnetite	Reduced To BX@502 Pyrite-Tr
2	504.5	513		97	30	250			3402	500-510	QMP	Same As Above w/Alternating Zones of Very Friable & Fresh Rock (50-50 Ratio)	Pyrite-Barren
3	513	521.9		96	125	130			3403	510-520	QMP	Same As Above w/20% Friable Mtl. Some Slickensiden Frac. Surfaces	Pyrite-Tr
4	521.9	531		99	150	60			3404	520-530	QMP	Same As Above w/No Very Friable Mtl Argillization 2-Loc 4, SiO_2-2, $CaCO_3$ Veinlets & Vugs, Fracs. Nearly Vertical Some Mafic Xenoliths (Diorite), Some SiO_2 Veins	Pyrite-Tr
5	531	539.6		97	125	500			#3405	530-540	QMP	Same As Above w/15% Very Friable Mtl	Pyrite-Barren
6	539.6	549		98	150	500			#3406	540-550	QMP	Same As Above w/No Friable Zones, Slight Increase In Amt of Incls., No Vugs	Pyrite-Tr Chal(?)-Tr@541.6 Sulphides-Diss.
7	549	557		100	75	300			#3407	550-560	QMP	Same As Above w/25% Very Friable Mtl, Some Epidote, SiO_2-2-Loc 3, Incls. The Same	Pyrite-Tr
8	557	565.6		99	75	300			#3408	560-570	QMP	Same As Above w/30% Friable Mtl., Concave Vugs With Calcite Xtls	Pyrite-Tr
9	565.6	574.6		100							QMP	Same As Above w/No Friable Mtl, No Inclusions	Pyrite-Tr

Hole OG#2
Sheet 1 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Oregrande
PROPERTY:

STARTED 12/29/64
COMPLETED
GEOLOGIST: E. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION: 4610.4'

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
0	574.6	583.4		100	15	20			#3409	570-580	QMP	Same As Preceding Box w/ Fracs, Vugs, Some Magnetite, Argillization 2-Loc 3, SiO_2 1-2 Some Epidote, A Few Mafic Incls.	Pyrite-Tr
1	583.4	591.9		99	75	80			#3410	580-590	QMP	Same As Above w/ No Magnetite, No Vugs, Most Of Box Strongly Altered, No Fresh Rock	Pyrite-Tr-1% Loc
2	591.9	600.3		96	40	150			#3411	590-600	QMP	Same As Above w/ Some Narrow Zones Of Friable Rock SiO_2 Loc 3, Zone Several Inches @ 596 Friable & Fe Stained	Pyrite-<Tr
3	600.3	609.5		97	150	200			#3412	600-610	QMP	Same As Above w/ No Friable Zones, SiO_2 1-Loc 2, Some Fe Staining In Small Vugs	Pyrite-Tr
4	609.5	618		98	300	150			#3413	610-620	QMP	Same As Above w/ Argillization Mosely 1-2 More Oxidation Then In Box 13.	Pyrite-Tr
5	618	627.2		95	300	150			#3414	620-630	QMP	Same As Above w/ SiO_2-1-2, Some Fracs Filled With $CaCO_3$, Some Mafic Incls, Less Oxidation	Pyrite<Tr
6	627.2	636.8		97	125	200			#3415	630-640	QMP	Same As Above w/ Some Calcite Vugs, Some Mafic Incls, No Oxidation	Pyrite-<Tr
7	636.8	646.0		96	75	100			#3416	640-650	QMP	Same As Above w/ No Vugs or Mafic Incl.	Pyrite-Tr

Hole OG #2
Sheet 2 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Oregrande
PROPERTY:

STARTED 12/29/64
COMPLETED
GEOLOGIST: E. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION: 4610.4'

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
8	646	655.2		97	125	150			#3417	650-660	QMP	Same As Preceding Box, Breakage To This Point Has Been 1-2, For The Most Part	Pyrite-Tr
9	655.2	663		90							QMP	Same As Above w/Breakage 2-4 Some Fe Staining	Pyrite-Tr
10	663	671		90	75	300			#3418	660-670	QMP	Same As Above w/Breakage-4, Last Half Of Box Very Friable Mtl. Argillization 2-4	Pyrite-Tr
11	671	679.8		75	125	100			#3419	670-680	QMP	Same As Above w/Breakage-1-4, Only About 30% Of Box Friable Mtl	Pyrite-<Tr
12	679.8	687.5		70	300	450			#3420	680-690	QMP	Same As Above w/No Friable Mtl., Breakage-4, Amt. Of Mafics Increasing	Pyrite-Tr
13	687.5	695		87							QMP	Breakage 2-4, Argillization-2-3 SiO_2-1-2, Dk Gray, Slightly Calcareous Inels	Pyrite-Barren
14	695	704.5		85	150	300			#3421	690-700	QMP	Same As Above w/Breakage 4, $CaCO_3$ In Some Fracs	Pyrite-Tr
15	704.5	712.4		91	125	450			#3422	700-710	QMP	Same As Above w/Breakage 3, Narrow Zone Of Friable Mtl Around 708.6 Fracs From 60°-Nearly Vertical	Pyrite-Tr-Loc 5%
16	712.4	721		97	250	450			#3423	710-720	QMP	Same As Above w/Breakage 1 (Last 6' Of Box) To 3. SiO_2 Loc 4 (Very Restricted) Tr Spec Hematite. $CaCO_3$ On Frac Surfaces	Pyrite-Tr

Hole OG-12 Sheet 3 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY:

STARTED 12/29/65
COMPLETED
GEOLOGIST: E. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
27	721	729.5		97	300	300			#3424	720-730	QMP	Same As Preceding Box w/Breakage 1-2, Tr Spec. Hematite, Zone Completely Flooded By SiO_2 726-727, Some Vugs w/SiO_2 Xtls. Argillization 2-Loc 4	Pyrite-Tr-1%
28	729.5	739		96	300	450			#3425	730-740	QMP	Same As Above w/Large Tactite Inclusions @ 734-735, Some Patches SiO_2, Very Friable Mtl. From 736-739	Pyrite-Tr
29	[illegible]	[illegible]		77	375	600			#3426	740-750	QMP	Same As Above w/Breakage 3-4 Argillization 3-4 SiO_2-4 From 744 745, Most Of Box Very Friable Rock, $CaCO_3$ Frac Filling, Tr Spec. Hematite	Pyrite-Tr MoS(?)-Tr @ 744
30	749.5	755.6		100	375	700			#3427	750-760	QMP	Same As Above w/Less Very Friable Mtl., Some Mafic Incls., Patches Of Epidote	Pyrite-Tr
31	755.6	764									QMP	Same As Above w/SiO_2 Flooded Zone 757-760, Argillization From 3-4, SiO_2-2-4 No Very Friable Zones	Pyrite-Tr MoS_2-Tr
32	764	773			300	450			#3428	760-770	QMP	Same As Above w/SiO_2 Flooded Zone From 764-772, Some K-Feld Flooding Along SiO_2 Veins Within SiO_2 Unflooded QMP Argillization 3	Pyrite-Tr MoS_2-Tr
33	773	780.5			300	100			#3429	770-780	QMP	Same As Above w/No SiO_2 Flooded Zones Argillization 2-Loc 3, SiO_2-2, Breakage-2-4	Pyrite-Barren

Hole 8a-2
Sheet 4 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY:

STARTED 12/29/64
COMPLETED
GEOLOGIST: F. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
34	780.5	788.2		77	75	150			#3430	780-790	QMP	Same As Preceding Box w/Breakage-4	Pyrite-Barren
35	788.2	796.5		88	120	80			#3431	790-800	QMP	Same As Above w/Argillization 4 From 794.4-796.5 (Very Friable Zone)	Pyrite-Barren
36	796.5	804.5		96							QMP	Same As Above w/Breakage-1, K-Feld 1-2, Argillization 2-4, SiO_2-1-2 Some Mafic Inclusions, Some Very Friable Zones	Pyrite-Tr
37	804.5	813.5		77	120	220			#3432	800-810	QMP	Same As Above w/K-Feld Along Edges Of SiO_2 Veins, Breakage-1	Pyrite-Barren MoS_2-Tr @ 817
38	813.5	822		96	60	150			#3433	810-820	QMP	Same As Above w/Breakage 3-4, Mafics-15%, Argillization 2-Loc 4	Pyrite-Barren
39	822	830.4		100	150	120			#3434	820-830	QMP	Same As Above w/K-Feld-Loc 3, Argillization-2-Loc 4	Pyrite-Barren
40	830.4	837.4		100	150	120			#3435	830-840	QMP	Same As Above w/Some Vugs Filled w/Calcite Xtls, Some Mafic Incl, K-Feld-1, Breakage-1, Argillization-2	Pyrite-Barren
41	839.4	848.6		100	120	120			#3436	840-850	QMP	Same As Above w/K-Feld 2, SiO_2 2-Loc 4	Pyrite-15% 846-846.4
42	848.6	857.6		97	150	60			#3437	850-860	QMP	Same As Above w/Argillization 2-Loc 4 w/Mafic Inclusions, SiO_2 Concurred To Veins	Pyrite-Barren

Hole OG #2
Sheet 5 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Grogrande
PROPERTY:

STARTED 12/29/64
COMPLETED
GEOLOGIST: E Mack
TOTAL DEPTH:
TYPE DRILL: Diamond - Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
3	857.6	866.5		96	150	220			#3438	860-870	QMP	Same As Above w/ SiO_2 - 2, Mafic 30-40% K-Feld - 2, Breakage - 1, Vug w/ Calcite Xtls	Pyrite - Barren MoS_2 - Tr @ 857.6, 862.5, 866
4	866.5	875.8		100	130	80			#3439	870-880	QMP	Same As Above w/ No Vugs, Argillization 2-3, SiO_2 Mostly Confined To Veinlets	Pyrite - Barren MoS_2 - Tr 872.5,
5	875.8	885		94	60	120			#3440	880-890	QMP	Same As Above w/ SiO_2 - Loc 3-4, Breakage - 1-2, Argillization 2 - Loc 4	Pyrite - Barren MoS_2 - Tr @ 879
6	885	894		93							QMP	Same As Above w/ Some Very Friable Zones, SiO_2 Loc 3	Pyrite - Barren MoS_2 - Tr @ 888, 890, 894
7	894	903.7		95	150	60			#3441	890-900	QMP	Same As Above w/ 35% or Bar Very Friable Rock, Very Few SiO_2 Veinlets Argillization - 2-4, Breakage 2-4	Pyrite - Tr MoS_2 - Tr @ 894
8	903.7	912.5		97	60	150			#3442	900-910	QMP	Same As Above w/ Breakage 1-2, No Very Friable Zones, Argillization - 2 K-Feld 2, SiO_2 - 2	Pyrite - Barren MoS_2 - Tr @ 912.5
9	912.5	922.1		98	40	220			#3443	910-920	QMP	Same As Above w/ Breakage - 1, Some Very Friable Zones (5% or Bar) K-Feld - 1-2	Pyrite - Tr

Hole OG #2
Sheet 6 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY:

STARTED 12/29/64
COMPLETED 1/13/65
GEOLOGIST: E. Mack
TOTAL DEPTH: 956
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
50	922	930.8		100	120	120			#3444	920-930	QMP	Same As Preceding Box w/ SiO_2 Loc 2 Argillization 2 - Loc 4, Decrease To SiO_2 Veins	Pyrite-Barren MoS_2-Tr @ 928, 926.
51	930.8	939.9		98	15	80			#3445	930-940	QMP	Same As Above w/ Very Little K-Feld Argillization 2 - Loc 3, Fe Mags-25%	Pyrite-<Tr
52	939.9	94[illegible]		77	40	120			#3446	940-950	QMP	Same As Above w/ Argillization Loc. 4 To Some Very Friable Zones, Some Mafic Inclusions	Pyrite-Barren
53	943.5	956		100	20	120			#3447	950-956	QMP	Same As Above w/ A Sharp Decrease To Fe Mags @ 954 (<5%), Some Calcite Veining, Argillization 2-3	Pyrite-Barren
												2/11/65 CORE DESTROYED	

Hole OG-2
Sheet 7 of 7

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Oro Grande
PROPERTY: OX #7

STARTED 11/18/64
COMPLETED 12/21/64
GEOLOGIST: F. Mack
TOTAL DEPTH: 1030
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

OX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
00	959.1	967.6		96	20	120			1794	960-970	QMP	Completely SiO_2 Flooded QMP	Pyrite-Tr-Loc 1%
01	967.6	976.3		97	60	120			1798	970-980	QMP	Same As Above	Pyrite-Tr-1%
02	976.3	985		100							QMP	Same As Above w/Frac. Filled With $CaCO_3$ & Few Pebbles @ 984 Stained With Limonite	Pyrite-1%
03	985	994		93	60	150			1796	980-990	QMP	Same As Above w/Some Unleaded QMP. A Small Zone Of Tactite @ 994, Argillization On Unleaded QMP-2-Loc 4	Pyrite-Tr-Loc 1%
04	994	1003		100	15	300			1797	990-1000	QMP & Tactite	Essentially No SiO_2 Flooded QMP Tactite From 999-1003 w/Magnetite (20%) 999 1000. QMP Same As Above w/Heavier Alt.	Pyrite-Tr-Loc 7%
05	1003	1012		90	30	200			1798	1000-1010	Tactite & QMP	The Tactite Is Laminated w/Portions Of Sediment Not SiO_2 Replaced. Some QMP (Both Flooded & Not Flooded, Mixed Within Tactite)	Pyrite-Tr-Loc 5%
06	1012	1020		100	40	360			1799	1010-1020	Tactite & QMP	Same As Above w/Nt SiO_2 Flooded QMP $CaCO_3$ Along Open Fracs Of Tactite	Pyrite-Tr-Loc 1%
07	1020	1029		90	15	100			1800	1020-1030	QMP	Same As QMP Above w/Argillization 2-Loc 3, SiO_2-2-Loc 3. Calcite Xl Filled Vugs	Pyrite-Tr-Loc 10% @ 1029'
08	1029	1030		98							QMP	Same As Above	Pyrite-Tr

Hole OG #4 Sheet 13 of 13

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Oregrande
PROPERTY: OX #7

STARTED 11/18/64
COMPLETED 12/
GEOLOGIST: F. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
0	866.4	878.3		80	40	150			1785	870-880	QMP	Same As Preceding Box	Pyrite-Tr-Loc 5%
1	878.3	888		95	30	150			1786	880-890	QMP	Same As Preceding Box	Pyrite-Tr-Loc 5%
2	888	897.5		95	40	150			1787	890-900	QMP	Same As Above w/Some Feld. Alteration On Open Frac. Surfaces	Pyrite-Tr-1%
3	897.5	905.8		100	30	120			1788	900-910	QMP	Same As Above w/No Frac. Surface Alteration, Breakage 2-Loc 4	Pyrite-Tr-Loc 3%
4	905.8	916		80	40	120			1789	910-920	QMP	Same As Above	Pyrite-Tr-Loc 10% @ 905.8-906.8
5	916	925		95							QMP	Same As Above	Pyrite-Tr-Loc 3%
6	925	933.3		77	30	150			1790	920-930	QMP	Same As Above w/Patches Of QMP Not Completely SiO_2 Flooded. SiO_2-2-Loc 3. Argillization Some $CaCO_3$ On Fracs. Of SiO_2 Flooded QMP	Pyrite-Tr-Loc 2%
7	933.3	941.5		93	40	150			1791	930-940	QMP	Same As Above w/Majority Of Run QMP Not Completely SiO_2 Flooded	Pyrite-Tr-Loc 2%
8	941.5	950.5		88	30	200			1792	940-950	QMP	Same As Above w/Fe Mags Above 5% No $CaCO_3$ Along Fracs.	Pyrite-2-Loc 5%
9	950.5	959.1		93	40	200			1793	950-960	QMP	Same As Above w/No 100% SiO_2 Flooded QMP	Pyrite-1-2%

Hole OG #4
Sheet 12

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Oro Grande
PROPERTY: OX #7

STARTED 11/18/64
COMPLETED
GEOLOGIST: E. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

ER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
7	755	763		92							Tactite & QMP	Tactite Same As Preceding Box w/More Magnetite (760-762 30%) 762-763 Quartz Rock, QMP Almost Flooded 100% SiO2	Pyrite-1-Loc 15%
0	763	772		98	20	360			1774	760-770	QMP	Almost 100% Flooded w/SiO2, Mod Frac.	Pyrite-Tr-5%
	772	782		90	20	75			1775	770-780	QMP	Same As Above w/Less Frac.	Pyrite-2%
1	782	791.3		100	30	100			1776	780-790	QMP	Same As Above w/A Few Zones of QMP Not Entirely SiO2 Flooded	Pyrite-2%-Loc 40% @ 790.3-791.3
3	791.3	799.8		100	40	60			1777	790-800	QMP	Same As Above w/No Zones of Unfloaded QMP	Pyrite-Tr-Loc 5%
-	799.8	816		60	20	75			1778	800-810	QMP	Same As Above	Pyrite-Tr-Loc 3%
					40	40			1779	810-820			
5	816	825		90	20	40			1780	820-830	QMP	Same As Above	Pyrite-2-3%
6	825	840		75	20	100			1781	830-840	QMP	Same As Above w/A Few Zones of Unfloaded QMP	Pyrite-2-3%
7	840	848.6		75	75	40			1782	840-850	QMP	Same As Above w/No Zones of Unfloaded QMP, Some Strong Alteration Along Open Fractures, Breakage 3-4	Pyrite-Tr-Loc 2-3%
8	848.6	857.8		87	40	150			1783	850-860	QMP	Same As Above w/Scattered Portions Not Completely SiO2 Flooded, Breakage-2	Pyrite-Tr-Loc 3%
9	857.8	866.4		95	30	40			1784	860-870	QMP	Same As Above, w/Breakage 1-2	Pyrite-1-Loc 3%

Hole OX #7
Sheet 1-1

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: OX #7

STARTED 11/18/64
COMPLETED
GEOLOGIST: F. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

X BER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
1	686	695.5		84	10	500			1767	690-700	QMP	Alternating Mod. Altered & Relatively Unaltered. Essentially Same As Above Preceding Samples.	Pyrite-Tr-1%
2	695.5	703		90							QMP	Same As Above w/No Mod Altered Rock, Silicification A Little Higher (SiO_2 Loc 3-4)	Pyrite-Tr-1%
3	703	[illegible]		95	5	500			1768	700-710	QMP	Same As Above w/Tr Magnetite	Pyrite-Tr-3%
4	712.4	720		99	5	750			1769	710-720	QMP & Tactite	QMP Same As Above, Tactite-716-720, Last 3' About 70% Magnetite Pyrite Occurs Within Some Of The Numerous SiO_2 Veins Within The Magnetite	Pyrite-Tr-Loc 10%
5	720	728.8		97	5	500			1770	720-730	Tactite & QMP	Same As Above w/About 10% QMP As Above, Tactite Similar To Above w/ 10% Magnetite 720-724	Pyrite-Tr-Loc 15%
6	728.8	737.2		98	5	500			1771	730-740	QMP	SiO_2-2-4 Argillization Loc 3, Some Fragments Tactite Within QMP	Pyrite-Tr-Loc 2%
7	737.2	747		90	5	1000			1772	740-750	QMP & Tactite	737.2-740 QMP w/ SiO_2-3-Loc 4, 740-747 Tactite w/Magnetite 742.5-744.5 About 50%, Calcite Frac Filling	Pyrite-5%-Loc 10%
8	747	755		100	5	1000			1773	750-760	QMP & Tactite	Same As Above, Mixed Tactite & QMP Tactite Predominant, w/Less Ea Magnetite	Pyrite-1-5%

Hole OG #4
Sheet 10 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Oro Grande
PROPERTY: OX #7

STARTED 11/18/64
COMPLETED
GEOLOGIST: F. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

X BER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
4	623.5	632		98	5	250			1760	620-630	QMP	Same As Preceding Box w/A Little Intermixed Tactite	Pyrite-1%-Loc 5%
5	632	641.3		93	5	1000			1761	630-640	Tactite	Same As Description For Box 62 w/ Magnetite About 5% From 632-634, Generally Lacking In Remaining More Highly Siliceous Zones	Pyrite-2%-Loc 15-20%
6	[illegible]	[illegible]		93	5	0.305% 2000			1762	640-650	Tactite	Same As Above w/No Hvy Zones Of Magnetite, Some Open Fracs With Calcite Xtls, Increase In Calcareous Groundmass	Pyrite-1-Loc 10% Chal-Tr @ 648
7	650.6	659		99	10	0.245% 1700			1763	650-660	Tactite	Same As Above w/A Few Very Narrow Zones Of Hvy Magnetite, 657-659 Is Very Highly Alt'd. QMP Highly Silicified & Argillized, Mtl. Appearing To Be Gouge @ 650.6	Pyrite-1-Loc 15%
8	659	668.4		90	5	1000			1764	660-670	QMP & Tactite	QMP 659-661.5-Argillization-3-4 SiO_2-1-2 Tactite Same As Above w/Tr Magnetite, Some Zones Of Hvy SiO_2, Some Calcite Veins, Mod-Hvy. Fracturing	Pyrite-QMP-Tr Tactite-1-Loc 5%
9	668.4	677		97	10	360			1765	670-680	QMP & Tactite	Intermixed QMP & Tactite, Same As Above	Pyrite-Tr-Loc 3%
0	677	686		95	5	250			1766	680-690	QMP	Argillization-2-Loc 4 SiO_2 2-3, Some $CaCO_3$ Frac Filling, Fe Mags-2-3%	Pyrite-Tr-Loc 2%

Hole OG#4
Sheet 9 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Ore Grande
PROPERTY: OX #7

STARTED 11/18/64
COMPLETED
GEOLOGIST: F. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond - Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
55	543	556		93	20	750			1755	540-550	QMP	Same As Preceding Box w/ No Quartz Amt of Breakage	Pyrite - Tr - Loc 5-10%
56	556	565			20	500			1753	550-560	QMP & Tactite	Alternating Zones Of Very Siliceous QMP And Tactite. The Tactite Contains Locally Fairly Hvy Amts Magnetite of $CaCO_3$	Pyrite - Tr - Loc 10%
57	565	574.3		94	5	1500			1754	560-570	Tactite & QMP	Same As Above w/ Tactite Ending @ 570.5. Tactite Contains Some Granetization And Magnetite. QMP Not Very Highly Silicified, Argillization 2-3, Lt Gray Color	Pyrite - 1% - Loc 6%
58	574.3	591.7		77	5	300			1755	570-580	QMP	Same As QMP Above w/ Less Silicification	Pyrite - 3% Avg. Entire Run
59	591.7	592.5		90	10	150			1756	580-590	QMP	Same As Above w/ Breakage 3-4	Pyrite - 1-3%
60	592.5	598		90	5	150			1757	590-600	QMP	Same As Above	Pyrite - 1%
61	598	605.6		90	5	225			1758 SEE SPEC. RESULTS	600-610	QMP	Same As Above w/ Less Breakage	Pyrite - 2%
62	605.6	615		92	5	500			1759	610-620	QMP & Tactite	QMP 605.6-611.5. Silicification 3-Loc 4. Tactite 611.5-615, Heavily Fractured Very Highly Siliceous, Calcareous Veinlets & Groundmass To Magnetite	Pyrite - 1 - Loc 3%
63	615	623.5		99							QMP	Silicification 4. Almost Entire Igneous Texture Obscured By SiO_2. Argillization 3	Pyrite - Tr - Loc 5%

Hole OX-1
Sheet 3 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Sierra
DISTRICT: Silver Hill
PROJECT: Oro Grande
PROPERTY: OX #7

STARTED 11/18/64
COMPLETED
GEOLOGIST: E. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Langyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
7	471.5	480.2	8.5	97	30	200			1745	470-480	QMP	Same As Preceding Box w/Less Intense Zones Of Alteration, SiO_2 Loc 3,	Pyrite-1-Loc 5%
8	480.2	490	7.9	81	15	500			1746	480-490	QMP	Same As Above w/No Areas Of Intense Argillic Alteration	Pyrite-Tr-Loc 5%
9	490	499	8.2	91	20	500			1747	490-500	QMP	Same As Above w/SiO_2 Loc 4, Numerous Fractures Filled w/SiO_2	Pyrite-1-Loc 10%-20%
0	499	508.3	8.1	87	15	1000			1748	500-510	QMP	Same As Above w/Very Intense Fracturing Healed By SiO_2, Hvy Silicification, Some Spec Hematite, Sn Patches Garnet	Pyrite-5-10% Avg Entire Run
1	508.3	516.4	7.4	94	15	1000			1749	510-520	QMP	Same As Above w/Patches Epidote, Small Zones Of Tactite, Hvy Alteration Along Open Fractures, Tr-Magnetite	Pyrite-1%-Loc 6%
2	516.4	526	8.1	84	30	750			1750	520-530	QMP	Same As Above w/Veins Containing $CaCO_3$, No Tactite, Tr-Magnetite	Pyrite-2%-Loc 15-20%
3	526	534.5	7.8	92							QMP	Same As Above w/No Fracture Surface Alteration, Silicification Decreasing, No Magnetite No Calcite	Pyrite 1-2%
4	534.5	543	6.7	78	30	360			1751	530-540	QMP	Same As Above w/Brecciation-4, Slight Increase In Silicification	Pyrite-2-5%

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Oro Grande
PROPERTY: OX #7

STARTED 11/18/61
COMPLETED
GEOLOGIST: E. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

X DER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
9	403.2	412	6.6	75	10	200			1738	400-410	QMP	Moderately To Heavily Altered QMP Very Friable Zone From 407.5-412 QMP Essentially Same As Preceding Box	Pyrite-Tr-1%
0	412	419	6.2	88	40	200			1739	410-420	QMP	Same As Above w/No Zones Of Unaltered-Fresh Rock All Very Friable Except For 4" Zone Not Completely Broken Down.	Pyrite-Tr-1%
1	419	426	7.7	92	10	750			1740	420-430	QMP & Tactite	Altered & Very Friable QMP 419.0-426 Tactite 426-427.6 w/SiO_2 Filling Frac. Tr-Magnetite No Apparent Granitization, Calcic	Pyrite-QMP-1%-Loc 5% 423-426. Tactite-Tr-Loc 3%
2	427.6	436.2	8.2	95	10	500			1741	430-440	Tactites QMP	Tactite-Same As Above w/A Little More Magnetite. QMP Not As Highly Altered As Preceding Box, Calcic.	Pyrite-Tactite 1%-Loc 6% QMP-5-10%
3	436.2	445	7.8	88	30	200			1742	440-450	QMP	Very Intense Alteration, Argillization 3-4 SiO_2-2-3	Pyrite-Tr-Loc 5%
4	445	453.2	7.2	88							QMP	Same As Above W/A Little Less Alteration, Some Very Friable Zones	Pyrite-1% (Reduced To BX GRAVEL)
5	453.2	462.7	8.1	90	20	750			1743	450-460	QMP	Same As Above w/A Very Siliceous Zone From 460-462'. No Argillic Alteration Within This Range.	Pyrite-Tr-1%
6	462.2	471.5	7.5	91	15	200			1744	460-470	QMP	Same As Above w/Alternating Zones Of Intense And Mill Alteration	Pyrite-Tr-Loc 5%

Hole OG #4
Sheet 6 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Oro Grande
PROPERTY: OX #7

STARTED 11/18/64
COMPLETED
GEOLOGIST: F. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond - Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

X DER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
2	340.6	349.4	8.3	94	5	0.415% 2000			1732	340-350	Tactite	Same As Preceding Box w/5% Magnetite	Pyrite - Tr - Loc 20% @ 341.6 - 346.0
3	349.4	358.5	8.4	92	5	0.175% 1300			1733	350-360	Tactite & QMP	Tactite Same As Above w/Tr - 5% Magnetite QMP - 349.4 - 352 & 357 - 358.5 Argillization 3-4 SiO_2 - 1	Pyrite - Tr - Loc 5% (Tact) 2% (QMP)
4	358.5	367.6	8.7	95	5	0.205% 1500			1734	360-370	QMP & Tactite	QMP Same As Above 358.5 - 366 w/Tr Magnetite. Tactite 366 - 367.6 More Highly Altered Than Preceding Tactites.	Pyrite - 1-2% (QMP) Tr - Loc 5% (Tactite)
5	367.6	376.5	8.3	93	5	0.16% 1300			1735	370-380	QMP & Tactite	Alternating Zones Of QMP & Tactite Same As Above, 5% Magnetite In Tactite	Pyrite - 5-10% Avg Entire Run
6	376.5	385.8	8.6	92	150	0.94% 5000			1736	380-390	Tactite	Very Highly Altered 376.5 - 380 Very Lt. Gray Color w/1-2% Magnetite, 380 To 385.8 Fresh, Little Altered Tactite w/ 3% Magnetite @ 384-385	Pyrite - 376.5 - 380 Tr - Loc 5%. 380 - 385.8 3% To Loc 20% 382.5 - 385.8. Chalcopyrite @ 382.5
7	385.8	394.5	7.4	85							QMP	First 2' Composed Of Highly Altered Tactite, Remainder Of Run 387.5 - 388.5 Friable QMP And 388.5 - 394.5 Fresh QMP. Argillization On Friable QMP 4 - SiO_2 - 1 Argillization On Fresh QMP - 1-2, SiO_2 - 2	Pyrite - Tr - 5% In Tactite, Tr In QMP
8	394.5	403.2	7.9	91	30	200			1737	390-400	QMP	Same As Above w/0.5' Very Friable Zone @ 402.7 - 403.2 Remainder Of Box Fresh QMP SiO_2 1-3 Argillization (Fresh Qtz) 2-3	Pyrite - Tr - Loc 3%

Hole OX #4
Sheet 5 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Grant
DISTRICT: Silver Hill
PROJECT: Oregonite
PROPERTY: OX #7

STARTED 11/18/64
COMPLETED
GEOLOGIST: E. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

OX SER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
4	274.1	280	4.6	85	.10	360			1725	270-280	QDP	Same As Preceding Box w/ SiO_2-2 - Loc 4	Pyrite-Tr-Loc 3%
5	280	288.4	7.3	87	5	1300			1726	280-290	QMP & Tactite	QMP 280-282.5 SiO_2-3, Argillization 3. Tactite 282.5-288.4 w/ Alternating Zones Of Clay In Horizontal Layers. Some Quartz Veins Cut By Pyrite. Fairly Hvy. Granetization. Magnetite-5%	Pyrite-5% 280-282.5 5%-Loc 15% 282.5-288.4. T. S. #2179 283.5
	[illegible]	[illegible]	2.0	73	10	1300			1727	290-300	Tactite	Same As Above w/ Tr-Loc 5% Magnetite Fracs: 30-50° Filled w/ Pyrite & Calcite	Pyrite-5% Entire Run Avg.
7	297	306	7.8	87	5	0.405% 2000			1728	300-310	Tactite	Same As Above w/ Slight Inc. In Magnetite Content, (Magnetite Loc 5-10%)	Pyrite-5-10% Entire Run Avg.
8	306	314.8	8.5	96							Tactite	Same As Above w/ Increase In Magnetite 10% Avg Entire Run,	Pyrite-5% Entire Run Avg.
9	314.8	322.9	7.4	72	5	0.225% 2000			1729	310-320	Tactite & QMP	Tactite Same As Above w/ Magnetite (25%) Continued To 321-322.8. QMP 314.8-321 Fracs 50° Filled w/ Pyrite & Calcite, Argillization 1-2, SiO_2-2.	Pyrite 314.8-321 3-4% 321-322.9-5%
30	322.9	331.5	8.2	94	5	0.35% 2000			1730	320-330	Tactite	Same As Above w/ QMP 327.7-329.4 Magnetite 5-10%, No Magnetite In QMP	Pyrite-5% (Tr-[illegible] Tr-1% (QMP)
31	331.5	340.6	8.3	91	5	0.27% 2500			1731	330-340	Tactite	Same As Above w/ Tr-5% Magnetite	Pyrite-5-10% Entire Run Avg.

Hole 004
Sheet 1 of 1

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: OX #7

STARTED 11/18/64
COMPLETED
GEOLOGIST: E. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

ER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
7	209.6	222	8.7	70	15	250			1719	210-220	QDP	SiO_2-2, Fractures 25°-45° Filled w/ Quartz & Pyrite, Argillization 2-4, No Friable Zone	Pyrite-Tr T.S. #2180 209'
8	222	231	7.7	86	5	250			1720	220-230	QDP	Same As Above w/A Little $CaCO_3$ In Fractures. Pyrite Confined To Fracs. No Friable Zones	Pyrite-Tr
9	231	238.7	6.2	81	5	250			1721	230-240	QDP	Same As Above w/1st 2' Fresh, The Remainder Is Either Very Friable or Highly Altered. Some Dk Gray Clay Around 236', Possibly Fault Gouge. Some Kaolin & Talc Present	Pyrite-Tr-1% Diss & In Fracs
0	238.7	248.2	7.8	80	10	250			1722	240-250	QDP	Same As Above w/Last 2' Fresh Rock, Some Vugs With Calcite Xtls, Calcite In Post-Mineral Fractures Cutting Pyrite Veinlets. Pyrite In Highly Decomposed Rock Not Oxidized	Pyrite-1% To Loc 5%
1	248.2	255.4	6.1	85	5	250			1723	250-260	QDP	Same As Above w/No Friable Zones or Calcite Veins. Some Nearly Vertical Fractures. Pyrite Confined Mainly To Fracs.	Pyrite-1% To Loc 5-10%
2	255.4	264.5	6.7	74							QDP	Same As Above	Pyrite-Tr-3% Average
3	264.5	274.6	7.7	77	10	360			1724	260-270	QDP	Same As Above w/SiO_2 2-3, Some $CaCO_3$ Frac. Filling. Very Sm Zone Around 266 With 75% Fe-Mags (Possibly Xenolith)	Pyrite-Tr-Loc 4%

Hole #1 (OG)
Sheet 3 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Oregonado
PROPERTY: OX #7

STARTED
COMPLETED
GEOLOGIST: F. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
7	121	134.5	8.8	65	40	250			1710	120-130	QDP	SiO_2 - 1, Argillization 3-Loc 4 Limonite Scarce, Most Of Core Very Friable With Intermediate Zones Of Fresh QDP	Pyrite - Tr 128-134.5
0	134.5	148.3	8.3	60	20	1300			1711	130-140	QDP	Very Lt Gray, SiO_2 - 2, Argillization 3-4, w/ Alternating Zones Of Very Friable Mtl. Very Little Limonite	Pyrite Tr - 1%
					20	750			1712	140-150			
1	[illegible]	157	8.4	96	5	350			1713	150-160	QDP	Same As Above w/ Increasing Amts Of Pyrite & Decreasing Amts Limonite	Pyrite - 1-2%
2	157	166.4	8.0	95	5	250			1714	160-170	QDP	Same As Above	Pyrite - 1-2% Chal - Tr @ 163
3	166.4	176	7.4	77	10	350			1715	170-180	QDP	Same As Above w/ Argillization 2-Loc 4 No Highly Weathered & Very Friable Zones Except 1st 0.5' Of Box	Pyrite 1-2%
4	176	191.7	10.0	64	5	350			1716	180-190	QDP	Same As Above w/ SiO_2 - 3, No Friable Zones	Pyrite - Tr - 1%
5	191.7	201	7.6	82	10	250			1717	190-200	QDP	Same As Above w/ Narrow Zone Friable Mtl,	Pyrite - 1-2%
6	201	209.6	7.1	83	10	250			1718	200-210	QDP	Same As Above w/ 40% Friable Mtl.	Pyrite - 1-2%

Hole OG #4
Sheet 2 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: OX #7

STARTED 11/18/64
COMPLETED
GEOLOGIST: E. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

OG #4

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
1	0	37	Some Overburden	45	10	250			1701	25-40	QDP & Overburden	Dk Gray, SiO_2-2-3, Argillization-2-Loc 4, Fe Mags-5%, Fracs. 50°. Nearly Vertical. Nearly Vertical Fracs. Filled w/ SiO_2 Veins. Limonite & Dendrites On Open Fractures. Breakage 4	Bedrock @ 25' SET 25' NX CASING NX 25' to
2	37	51.2	6.5	46	10	250			1702	40-50	QDP	Same As Above w/ Most Of Box Having 4 Argillization. To Magnetite In Very Fine Fractures	
3	51.2	61.6	6.3	62	40	750			1703	50-60	QDP	Same As Above, Argillization 2-3, No Obvious Magnetite.	
4	61.6	79	7.6	25	60 60	200 500			1704 1705	60-70 70-80	QDP	Same As Above w/ Heavier Limonite Staining & Fracture Filling	
5	79	87	7.0	87	40	500			1706	80-90	QDP	Same As Above	
6	87	96.2	6.1	70	60	360			1707	90-100	QDP	Same As Above w/ Argillization Loc 4,	Pyrite-Tr @ 96 Cu Oxide Stain @ 95'
7	96.2	100.6	4.4	100							QDP	Same As Above w/ SiO_2 1-2	
8	100.6	121	20.2	40	60 75	1500 1300			1708 1709	100-110 110-120	QDP	Very Highly Veined w/ SiO_2-1, Argillization 1-2, Magnetite To Loc 102 In Very Narrow Zone. Very Hvy Limonite From 112-121. Note: Hvy Cu Loss Probably To Hvy Limonite Zone. 121' Probably Bottom Of Oxidation Zone	Pyrite-Tr @ 112

OG #4

OG #1 DDH

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: NEW MEXICO
COUNTY: OTERO
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: Superior - Anthony

STARTED: 8/21/64
COMPLETED: 10/5/64
GEOLOGIST: A.J. PERRY
TOTAL DEPTH: 1006.0
TYPE DRILL:
DRILL CONTRACTOR: E.J. Longyear

BEARING:
INCLINATION: VERTICAL
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
37	365	374.6	9.5	99	40	150			1642	367-377	Tactite		
												< ½% total sulf (Py, Cpy) Cpy only slt tr	V. Slt. tr Cpy
												open recgs @ 368 (gyp?)	
38	374.6	384.3	9.7	100	5	150			1643	377-387	- do -	Only Tr Py, tr Cpy @ 477	Tr Cpy 477
													Tr Cpy 387.2 & 393.9
39	384.3	393.9	9.7	99	15	225			1644	387-395	- do -	Only Tr Py-Cpy.	
										395-403		w/ 387.7 - 293 Qmp? pk-gn gy mottled - Sed 1-2, K 1-2	
												open recgs 387.7 (gyp?).	
40	395.7	403.9	7.9	100	nil	0.19%			1632	395-403	Tactite	w/minor Calcite - prime gn-gy mottled rx.; Epi common	Cpy - Tr mnts thru Box 40
												Py - 3-5%. 400.6 - 403.6 - 1-2% throught box.	½-1% Cpy - 395 - 397.7
												Sulf prime as distinct blebs	1-2% Cpy 400.6 - 403.6
41	403.6	413.1	9.5	100	10	2400 0.11%			1645	403-413	= do =	- total sugg box (ave) 3-% - loc to 5% - Sulfs Cpy-Py.	½-1% Cpy - 407 - 411
					15	0.145% 1800			1646	413-416		both fresh (untarnished).	Tr. to ½% remainder box.
												Open frac - Calc filled, bot fill - 409.7 - 410.7. Loc gpi	
42	413.1	[illegible]	9.5	100	5	1200		1623		416-422.6	= do =	forms 30% core.	½% Cpy - 413.1 - 419
												→ Only tr Py-Cpy 419 - 422.6 (in hvy Alm. gar sec).	TR Cpy thru box.
												Prime Alm gar blebs to ½" form 50% rx. 419-421	
43	422.6	432.1	9.3	97	Nil	0.99		1624	ASP.	422.6-426	Tactite	Mottled rd-gy-gn rx, bkg. 3-4 loc; geol 1-2;	
					5	3000 0.10%		1647		422.6-432		tight in frac rx.	423.6 - 425.8 - 3% Cpy
													Tr to ½% Cpy Rem of Box.
													Py - about equal to Cpy.
44	432.1	441.8	9.5	98	5	7200 0.68%			[illegible]	432-438	- do -	Hvy Py - 20-30% - 434 - 438.	Tr to ½% Cpy. Box 44
													Py 2-5% Ac.
45	441.8	446	4.1	98	40	3000 0.13%			[illegible]	438-446	- do -		Tr Cpy Box 45
													1-2% Py

Hole OG #1
Sheet 8 of

OG #1 DDH

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: NEW MEXICO
COUNTY: OTERO
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: Superior - Anthony

STARTED: 8/21/64
COMPLETED: 10/5/64
GEOLOGIST: A.J. PERRY
TOTAL DEPTH: 1006.0
TYPE DRILL:
DRILL CONTRACTOR: E.J. Longyear

BEARING:
INCLINATION: VERTICAL
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
46	446	455.0	9.7	99	75	0.060% 900			(1650)	446-451	Tactite	Princ. Gar. - w/Sm Calc. - Rx frac 3-4, well healed	Cpy - 446 → 473
					Nil	0.36			(1651)	451-456		by inv. gar. ... forms gn brn. mottled rx...	at least in Tr Amts
												Numerous fracs 60° - Rx has "swirly" text -	Cpy - 451.3 - 456 -
47	455.8	465.1	9.3	100	60	2200 0.11%			(1651)	456-466	- do -	Mottled rd-grn. Occ. Vague rem. text of Qmp?;	2% -
												Epi clusters & blotches common to abu.	Cpy 465.1 - 467 -
													½ - 1%
48	465.1	472	6.7	94	10	0.092% 900			(1652)	466-473	- do -		
													Sple 425 } thin &
													Sple 453.5 } Pol. Section.
49	472	480.5	8.5	100							Tactite	Grn. brn mottled rx; Ta? dk 476 - 478.	½ - 1% Cpy 473 - 477.5
					.002	.08			(1630)	473-477	w/ med gy dks.?	1/2 to 1% Cpy 473-477.5, Py 1% or less sm. interval.	tr beyond.
												Py incl. 477.5 → loc. 20-30%.	
50	480.5	489.7	9.0	98	30	4000 0.22%			(1653)	477-487	Tactite	Cpy (½ to 1%) 480.5 to 488 - tr beyond - Py rem.	½ to 1% Cpy. to 488
												but try 10% to 40% %. Few thin open fracs. Cal. filled.	tr beyond.
												Qmp. - 494 - 498.7; Sil 2-3 - dg 2, sm near vert fracs w/dragged out Fellags.	
51	489.7	498.7	8.9	99	10	4200 0.29%			(1654)	487-494	Tactite & Qmp	TR Cpy to 1% - to 493.5; Py 5-40% to 493.5 -	Tr to 1% Cpy to 493.5
												Sulf only in Tr amts beyond 493.5.	
52	498.7	506	7.1	97	10	0.051% 450			(1655)	494-504	Qtz monz prop.	Sil 3 - bn of sulf; gn gy rx; 30-40% phenocrysts;	

Hole OG #1
Sheet 9 of

OG #1 - UDH

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

✓ split & to Bloom

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: Superior - Humphrey

STARTED: 8/21/64
COMPLETED: 10/5/64
GEOLOGIST: A.J. Perry
TOTAL DEPTH: 1006.0
TYPE DRILL:
DRILL CONTRACTOR: F.J. Longyear

BEARING:
INCLINATION: Vertical
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
53	506	515	9	100	10	0.027% 300			1656	504-512	Qmp & tactite	Qmp - L.gy to 512.3; sil 3-4; text. obl. 508.3 - 509.3;	Cpy - 2-5% - 512.3 - 515
												Only Tr Py in Qmp.; Tactite 2.5% Cpy - 5-10% Py.	
54	515	524.2	9.2	100	15	9000 1.39%			1657	512-519	Tactite		
									SEE SPEC. RESULTS			Princ mottled gn & pk;	Cpy - 5-10% - 516-521
												515-516 - 1-2% Cpy - <1% Py	← ½-1% 521-524.5
55	524.2	533.3	9.1	100	20	9000 0.68%			1658	519-528		516-521 - 5-10% Cpy - 10-30% Py - cpy geol tr.	
												521-524.5 - ½-1% Cpy - 10-20% Py.	
											Tactite & Qmp	Tactite to 527.9; Tr to 1% Cpy + 527.7 - 10% Py.	→ Cpy - Tr - 1% - 524.2 to 527.7
56	533.3	542.5	9.1	99	40	0.027% 150			1659	528-538		Sm Py @ 330.3 - Qmp geol. sulf bn.	
												Tactite - 539.3 - 540.7; Qmp bn to 538.	Tr Cpy - 538 - 539.2
											Qmp w/ sm. tactite	538 - 539.2 - 5-10% Py - → Tr. Cpy	
57	542.5	551.5	9.0	100	60	0.067% 600			1660	538-545	Qtz monz. porp. to 549.5	w/ text loc obl.; Ex blk (hvy bulf - 545 to 547.5);	
												gn gy porp to 545 - sil 2+, bn of sulf;	½-1% Cpy 545-547.5
												10-50% Py - 545-547.5; as repl. of spl rich zos	sm Bor. tarn.
												and frac fill; cpy ½-1% Sm int - sm Bor. tarnish;	℄ (near tactite)
58	551.5	560.6	9.0	99	75	4000 0.44%			1661	545-556		Poss Mar?, Py v. wh. (hvy Sulf 30 in near tactite)	
												Sm thin v. fracs w/ blk. slicks.	Tr - 1% Cpy - 549.5 - 551.5
					15	0.795% 2200			1662	556-559		549.5 → 560.6 dense (gn brittle ex (cgn?)	
												547.5 → 549.5 - Tr - 1% Py;	
												549.5 - 551.5 2-10% Py. Tr - 1% Cpy sm interval	
											Tactite to 556 gn sed (sil)	20-60% Sulf (Mar? - Py) Cpy - Tr to 1% + to 559	Tr - 1% Cpy? 551.5 to 559.
												Tactite to 556 - gn gy sil sed 556 → 560.6	
												2.5% Py 556 → Tr to ½% Cpy Sm int.	Tr - ½% Cpy
													556 → 560.6

Hole OG #1
Sheet 10 of

OG #1 - DDH

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: NEW MEXICO
COUNTY: OTERO
DISTRICT: Silver Hill
PROJECT: Opgrade
PROPERTY: Superior - Humphrey

STARTED: 8/21/64
COMPLETED: 10/5/64
GEOLOGIST: A. J. PERRY
TOTAL DEPTH: 1006.0
TYPE DRILL:
DRILL CONTRACTOR: E. J. Longyear

BEARING:
INCLINATION: VERTICAL
COORDINATES:
ELEVATION:

67 - 633.5 - 634

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	ASSAYS Cu					ROCK TYPE	DESCRIPTION	REMARKS
59	560.6	569.6	8.9	99	75	1500			(1663)	559-567	Sil Sed - lgy	dense; brittle, ll ch. spaced 50° fracs; Sulf goal rest & fracs to 566.8	
												2-5% Py - 560.6 to 566.8 - Trace Cpy	Cpy - Tr - 560.6 to 566.8.
												566.8 - 569.6 20% Py - Tr → ½% Cpy	Tr to ½% 566.8 to 569.6
												566.8 → Qmp? 20%+ Ferrmgs (prob spec) - Sulf	THIN. SEC. 569'
												farm these areas.	SLIGHTLY CALC. SS
												Sulfides cont to be fr.	
60	569.6	578.7	8.9	93	15	1500			(1664)	567-577	Qmporp? - & lgy sil sed	About ½ sil sed; Qmp erades ll planes of	About ½ cu —
												wkness, sed gent Tr or bn of sulf; Qmp.	Tr to ½% Cpy?
												15-20% Py & Mar?; Cpy - Tr to ½%	
												Sil 3+.	
61	578.7	588	9.0	97	150	450			(1665)	577-586	- do -	Porp to 580.7 - banded shly ls. v thin bed.	Tr to 1% Cpy
												Py - Tr to 3% Py, loc hvr - Cpy Tr to 1%	Tr MoS2? - 281.7
												Tr MoS2 - 281.7	(Spl - 58)
62	588	596.8	8.8	100	15	2500 0.23%			(1666)	586-596	lg sed - bl. gy	bn gy to bl gy - thin bed - tight rx w/only minor high	
												& fracs; 2-5% Py - Tr to ½% Cpy; Tr to loc ½% MoS2	Tr → ½% Cpy Tr to loc ½% MoS2
												All sulf fr:	
63	596.8	606	9.1	99	15	300			(667)	596-606	- do -	Blgy to buff, banded, Py - ½-1%; Cpy Tr -	Tr Cpy - MoS2
												Mody Tr.	
64	606	615	9.0	100	15	900			(1668)	606-616	"	Blgy - Tr of sulf 606-608.5; Tr to ½% Py	Tr Cpy 608.5 - 615
												608.5 615 - Tr Cpy 608.5 → 615	
65	615	624.3	9.3	100	15	450			(1669)	616-626	Blgy sil ms - mor massive	Tr to 1% Py. to 519.5; 1-3% Py 519.5 - 624.3;	Tr → ½% Cpy 519.5 - 620.7
												Tr to ½% Cpy 519.5 624.3; Tr MoS2 622.3	Tr MoS2 - 622.3

HOLE OGPT. SHEET 11 OF

OG #1 - DDH

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: NEW MEXICO
COUNTY: OTERO
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: Superior-Humphrey

STARTED: 8/21/64
COMPLETED: 10/5/64
GEOLOGIST: A.J. PERRY
TOTAL DEPTH: 1006.0
TYPE DRILL:
DRILL CONTRACTOR: E.J. Longyear

BEARING:
INCLINATION: VERTICAL
COORDINATES:
ELEVATION:

X GER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
66	624.3	633.5	9.0	99	150	900			(1670)	626-636	Sil (ms)	Blgy-blk & 1 bro banded (irreg);	Cpy - TR - 624.3-629.5
												TR - ½% Py to 629.5 - TR Cpy?;	TR to ½% 629.5-633.5
												1-3% Py 629.5 - 633.5 - TR to ½% Cpy Sm int.	MoS2 - TR to Loc ½%
												MoS2 TR to Loc ½% ; v. irreg. sulf dist.	629.5-633.5
67	633.5	642.6			30	600			(1671)	636-646	Sil ms & Qmp.	Sh. to 637.6 - (-)45° sh. Qmp ct; Qmp-Sil 2-3; minor cpi; Tr Cpy - Tr MoS2	
												Frac. intense in sh. 1-2 in Qmp.	
												Tr - ½% Py, Tr Cpy - in sh. 1-2% Py in Qmp. well diss.	
68	642.6	651.9									Qtz monz porp.	Qmp cont as above - Min about Sm	
69	651.9	660.9			225	600			(1672)	646-660	- do -	Sil 3-4; Min: 1% Py; Tr Cpy; tr Cov. @ 659.	
												w/Bor in more open frac area	
70	660.9	669.8			150	900			(1673)	660-670	- do -	1% Py; Tr to loc ¼% Cpy; tr MoS2	
71	669.8	678.5			75	900			(1674)	670-680	- do -	w/ fa gouge 672.6 - 673.4 - Minor MoS2 in fa zo.	
												Py - 1% - Cpy, Tr.	

Hole OG #1
Sheet 12 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Oro Grande
PROPERTY: Superior - Humanity

STARTED: 8/21/64
COMPLETED: 10/5/64
GEOLOGIST: A. J. Perry
TOTAL DEPTH: 1006.0
TYPE DRILL:
DRILL CONTRACTOR: E. J. Longyear

BEARING:
INCLINATION: Vertical
COORDINATES:
ELEVATION:

Generally - although MoS_2 low - appears more MoS_2 - less Cu down hole.

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
72	678.5	687.5			225	1200		(1675)		680-690	Qtz monz porp.	Loc brec 678.5 - 679; Sil 2½ - 3.	
												1-2% Py; sctd Tr MoS_2; Tr Cpy .. Py cont genl	
												well diss, part in patches & blebs	
73	687.5	696.3			75	900		(1676)		690-700	- do -	[illegible]	
												689.3 - 695 - [illegible]	
												[illegible] MoS_2 noted	
74	696.3	705.2			20	900		(1677)		700-710		[illegible] 698.4; Min as above	T.S. 700'
													SILICIOUS PORP. ANDESITE
75	705.2	714.2			150	480		(1678)		710-720	Qtz monz porp & hornfels	Porp to 709'; 1-2% Py, Tr Cpy.	
												Hnfls -	
												Vnlts Qtz abn - [illegible] - Py - 3-5% - Cpy - Tr.	
												MoS_2 mod. part in better sil zos. - Tr to ½%.	
76	714.2	723.2			75	480		(1679)		720-730	Banded hornfels?	Med gy & 1 brn - narrow banding; Sil 2-3; less than	
												in prev box; Only v minor fracs; Py - Tr → 1%, Tr Cpy.	
												Tr MoS_2	
77	723.2	732.6			125	700		(1680)		730-740	- bm -	Sil about sm as above; Tr → 2% Py; MoS_2 tr beyond	
												729.5; loc hvy @ 729.5; Cpy @ 732.6	

Note 1641
Sheet 13 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Oro Grande
PROPERTY: Superior - Humphrey

STARTED: 8/21/64
COMPLETED: 10/5/64
GEOLOGIST: A.J. Perry
TOTAL DEPTH: 1006.0
TYPE DRILL:
DRILL CONTRACTOR: E.J. Longyear

BEARING:
INCLINATION: Vertical
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu		SPLE. TAG NO.			ROCK TYPE	DESCRIPTION	REMARKS
78	732.6	741.4									Met shale	Lg & 1 hrn, banded; Sic 1-2; Fracs 1-2; tight healed, Geul bn. Loc Tr → ½% Py; Tr Cpy; Loc sm. MoS_2 --	
79	741.4	754.5			60	700		(1681)		740-750	-do-	w/ geul more sic - 752.5 → 745.5 Py Tr - ½%, Tr Cpy ?; Sm MoS_2 752.5 - 745.5	
	[illegible]	[illegible]			220	500		(1682)		750-760	[illegible]	Sil coat [illegible] - Lg & 1 hrn; Frac 2-3 in sic rx; Sm MoS_2 thru box - but cu [illegible] vnlts qtz; Py - Tr → ½%, Cpy Tr	
81	763.[illegible]	770.[illegible]			120	0.12% 1200		(1683)		760-770	"	hvy sic to 771; Frac 2, late hacs, thin, $CaCO_3$ filled; ½-1% Py, Tr [illegible] Cpy - Sm MoS_2 thru box on bdg pln surfs as well as in qtz vnlts.	
82	772.7	787			300	0.16% 1200		(1684)		770-780	"	MoS_2 cont as in box above. - Sm Cpy throughout box but ½-1% 776 - 781; Py - Tr to 2%	

Hole [illegible]
Sheet 14 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Oscura
PROPERTY: Sawyer - Humphrey

STARTED: 9/8/68
COMPLETED: 10/5/68
GEOLOGIST: R. J. Perry
TOTAL DEPTH: 1006.5
TYPE DRILL:
DRILL CONTRACTOR: E. J. Longyear

BEARING:
INCLINATION: Vertical
COORDINATES:
ELEVATION:

X DER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu		SAMPLE TAG NO.			ROCK TYPE	DESCRIPTION	REMARKS
83	782	791.4	91	97	300	0.22% 2000		1635		780-790	Sandstone	Lapilli Lithic Tuff [illegible] 2-3; [illegible]	
												[illegible] SS veinlets.	
												Tr blebs, [illegible] 780-791.4; 5% blebs 782.4 - 792.4	
												[illegible]	
84	791.4	800.5	91	100	150	0.13% 1300		1636		790-800			
												[illegible]	
												[illegible]	
[illegible]						0.060% 50					Sandstone	[illegible]	
												[illegible]	
												[illegible]	
86	[illegible]	818.4	83	[illegible]	50	0.070% 750		1638		810-820	-do-	[illegible]	
												[illegible] 2-5% Py 816 - 818.4; [illegible] 1 bn-1 py -	
												[illegible] (Py)	
												[illegible] (cell trays [illegible])	
87	818.5	[illegible]	91	100	15	0.265% 1900		1639		820-830	Sandstone	Lapilli [illegible] 820-[illegible]; lime or [illegible]	
												[illegible] 1-2% [illegible]	(820-830)
												[illegible]	
												Brec [illegible]; [illegible]	
												[illegible]	
88	[illegible]	[illegible]	91	1	75	0.190% 1900		1640		830-840	[illegible]	Lapilli [illegible]	329.
												[illegible]	
												5-7% [illegible]	
												[illegible]	

Hole [illegible] Sheet 15 of [illegible]

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: NEW MEXICO
COUNTY: GRANT CO.
DISTRICT: SILVER HILL
PROJECT: ORO GRANDE
PROPERTY: DUNCAN-HUMPHREY

STARTED: 9/21/64
COMPLETED: 10/5/64
GEOLOGIST: A. J. PERRY
TOTAL DEPTH: 1006.0
TYPE DRILL:
DRILL CONTRACTOR: E. J. Longyear

BEARING:
INCLINATION: VERTICAL
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
89	836.6	845.5	8.5	86	100	200			1691	840-850	Sil limestone	gn-pink; w/sm calc filling near vert fracs; Py-tr → 5% (gen'l tr.) Sm. garnet dev. No Cpy noted.	
90	845.5	854.6	9.1	100	75	950			1692	850-860	-do-	w/mod. garnet dev (v.fr grnd); Tr → 1% Py w/Tr Cpy.	
91	854.6	864.5	9.1	92	75	200			1693	860-870	-do-	less garnet; Tr Py.	
92	9.4.5	873.4	9.9	100							Sil Ls & tactite	w/mod. garnet dev. to 867 - hvy beyond 867; sm milky qtz blebs and flooded areas in hvy gar. 30; Tr Py to 867. 2-3% Py 867 to 873.4; Tr Cpy 867-873.4	
93	873.4	882.5	9.0	99	75	950			1694	870-880	Tactite	Fg, yl brn garnet; 2-10% Py 882.5 - bor & Cpy.	
94	882.5	891.3		96	100	0.20% 1900			1695	880-890	-do-	Rx gen'l well brec; milky qtz blebs cont.; (slides in Box 93, above) Ave 5% - 10% Py. Tr Cpy	
95	891.3	901	6	85	200	0.20% 1600			1696	890-900	Gmp & tactite	Tactite to 892.3; Gmp - SiO 3, Arg 2; Hbld patches, Det = 3. Tr MoS_2; Tr → ½% Py, Tr Cpy.	tactite
96	901	910		90	100	0.20% 1900			1697	900-910	Tactite & Gmp	Alternating w/ ⅓ (milky) vns cont.; Tr MoS_2; ½-1% Py; sm. Cpy esp 902.5-903. Numerous hem & Qtz filled fracs.	T.S. 894' SKARN Rock

HOLE DEPTH 1006 FEET

OG #1 - DDH

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero.
DISTRICT: Silver Hill
PROJECT: Oro Grande
PROPERTY: Superior - Humphrey

STARTED: 8/21/64
COMPLETED: 10/5/64
GEOLOGIST: A. J. Perry
TOTAL DEPTH: 1006.0
TYPE DRILL:
DRILL CONTRACTOR: E.J. Longyear

BEARING:
INCLINATION: Vertical
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
97	906	916	9.2	92	100	0.16% 1600			1698	910-920	Tactite & sec & marbleized Ls.	Mixed, w/rubbly $CaCO_3$ filled zo. 906.5 - 908.5 well frac. rx; Py - < 1% genl. w/Cpy @ 914.3.	
98	916	926	9.2	92	100	0.20% 2400			1699	920-930	= do =	w/minor Qmp (sil); Rubbly $CaCO_3$ secs continue (probably Sdy ls not completely sil). Py < 1%, Tr Cpy.	
99	926	934.7	8.5	95	75	0.175% 1600			1700	930-940	= do =	Fractured 3'; Rubbly gar. zo 926-927. Py ave 1%; Tr Cpy	
											Tactite w/sil ls.	1-5% Py -; Tr Cpy.	
100	934.7	944.3		95									
101	944.3	953.3	8.9	98	100	0.30% 2900			1401	940-950	= do =	Ls lgy; Altn. Ls & tactite units; Py 3→10% Cpy tr to loc. 1%. ~~tactite~~	
102	953.3	962.3	9.0	100	75	0.48% 2900			1402	950-960	Ls w/tactite	5-10% Py; Tr Cpy.	T.S. 955' SKARN ROCK or tactite
103	962.3	972	7.4	76	200	0.29% 2900			1403	960-970	Sil Qmp	Wh Qmp; almost w/o text; Tr Py & tr MoS_2 in Qmp. 962.3 - 963.3 $CaCO_3$ rubble rx; w/ blk sooty (Chalc? @ 963) - Py 1-2%; Cpy 1/2%.	
104	972	930.7	8.4	96	100	360			1404	970-980	Sil Qmp	Only minor frics; Knife edge trn - Qtz filled. Tr MoS_2 in sm Qtz vnlts.	

Hole OG#1 - DDH
Sheet 17 of

DH #3 - DDH

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: NEW MEXICO
COUNTY: OTERO
DISTRICT: SILVER HILL
PROJECT: ORO GRANDE
PROPERTY: SUPERIOR-LAVACEK (LAURA CLAIM)

STARTED: 10/8/64
COMPLETED: 10/27/64
GEOLOGIST: A.J. PERRY
TOTAL DEPTH: 1024.5
TYPE DRILL: DIAMOND DRILL
DRILL CONTRACTOR: E.J. Longyear

BEARING:
INCLINATION: VERTICAL
COORDINATES:
ELEVATION (Collar): 4591.4 Ft. (~~SEA LEVEL~~)
47.6' BELOW ANACONDA DH #1

Hole located to test Chargeability high - Resistivity & Magnetic Low(?)

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
1	19.2	23.4		77	10	800			2301	19-29	Qtz diorite porp. & sil Ls.	Sills - 19.2 - 21.0; Qdp remainder.	
												Ls lgn, brec, w/ fracs ctd w/ ul brn lim clos and sm brn film; loc. mod pstly garnet dev (coarse fn grnd). Minor Vn? resembling impressions on sm. frac. surfs.	T.S. 25.6' # 2129
												Qtz - Lgnzg. Sil 2, Arg 1, <5% Fe Mags. Alt 3. Intense random fracs. Ox Mag fills numerous fracs.	
2	23.4	41.6	7.3	55	10	1000			2302	29-39	Qtz. diorite porp	Intense frac cont. - geol features sm.; dkr. gn rx (dike) - 36 - 37'. 38 - 41.6 rx cored in smaller pieces..	
3	41.6	53.0	7.6	67	15	550			2303	39-49	- do -	Smaller cored rubbly pieces cont to 46; Only minor ox frac. fill below 47.5; w/ Mag & Py. Stgrs mod to intense below 47.5 loc. tectite dev.	Ox of intense ox but @ 47.5. Py - 47.5 →
4	53.0	61.0	7.7	96	120	550			2304	49-59	- do -	Lt. pinkish gn - gy; Pre & post mineral fracs; make for random ox of sulf & mag; Geol Py later than Mag. Minor tectite veins; Mod Py 12 →; Ox again intense along sm fracs (hvy rd brn & ul brn stgs).	Ox on increase again.

OG #3 - DDH

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: NEW MEXICO
COUNTY: OTERO
DISTRICT: SILVER HILL
PROJECT: ORO GRANDE
PROPERTY: SUPERIOR - LAVACEK (LAURA CLAIM)

STARTED 10/8/64
COMPLETED 10/27/64
GEOLOGIST: A.J. PERRY
TOTAL DEPTH: 1024.5
TYPE DRILL:
DRILL CONTRACTOR: E.J. Longyear

BEARING
INCLINATION VERTICAL
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
5	61	71	8.7	87	40	800			2305	59-69	Qtz diorite porp.	Sm. but increase in garnet vnlts. & blebs; Sm Py.	
6	71	81	8.1	81	40	800			2306	69-79	= do =	garnet sttly less than above; Py & pttly ox Mag cont. bkg. cont.	
									SEE SPEC. RESULTS				
7	81	89.5	8.2	97	40	1500			2307	79-89	= do =	Garnet cont; less ox along fracs than above from 83. intense bkg cont; Loc sil 3 - w/gy qtz.; Est 2-3% Mag.; Py < 1/2%. except for 20% Py 82-83..	Tr Cpy? 82.5
8	89.5	98.8	8.4	90	60	0.12% 2000			2308	89-99	Qtz dior porp & tactite	Tactite 91.5 - 95; ox only mod. w/sm. vugs w/CaCO3 Xtal ctgs 96.5 98.8; Tr → 1% Py in Qmp; 2-5% Py in tactite; Sm cpi.	
9	98.8	106.9	7.6	95	10	400			2309	99-109	Qtz. dior porp	Ox incr. again; only minor Sulf & Mag-hem vnlts. Sil down to 1st last few boxes.; Sm dendritic Mn patches on frac surfs. Py tr → 1/2%.	
10	106.9	116.9	7.9	81	60	1100			2310	109-119	= do =	Hvy ox along fracs cont to 112.5; lt rd brn & lt grn yl; Minor tactite zones; Frac 3; sm high ∠ fracs CaCO3 filled; Sil 2-3. Py - 1/2 - 1% 112.5 - 116.8	Bot ox 30 - 112.5 T.S. 116' # 2128
11	116.9	125	8.2	99	20	1500			2311	119-125	Qtz dior. porp. & tactite	40% tactite - 60% Qdp; 1-2% Py - Tr Cpy - Qdp. 3-5% " - Tr Cpy - Tactite	

HOLE # OG #3 DDH
SHEET 2 OF 17

OG #3-DDH

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Oro Grande
PROPERTY: Superior - Lavalek (Laura).

STARTED 10/8/64
COMPLETED 10/27/64
GEOLOGIST: A.J. Perry
TOTAL DEPTH: 1024.5
TYPE DRILL:
DRILL CONTRACTOR: E.J. Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu	Fe%				ROCK TYPE	DESCRIPTION	REMARKS
12	125	134	8.2	91	40	1500	13.20		2312	125-130	Sil ls - Magnetite	Frac 3- 30° → V.; ptly gen ls to 127; sil ls	
					70	0.23% 3100	21.28		2313	130-135	rx & sil ls w/	127 - 130? ; Mag rx 130? - 131? ; Sil ls	
											tactite...	131? - 134;	
												Mag 50+% - Py 5+% in mag. rx.	1' Mag Rx
												Py - 5% throughout - Cpy tr. throughout	
13	134	144	8.3	93	180	400	6.89		2314	135-140	Sil ls & Mag rx.	Sil ls w/ sm mag to 140; hvy mag rx 140 - 144.	4' Mag Rx
					70	0.25% 3100	22.02		2315	140-145		Ls lt gn; frac 3-4; ½-1% Py in ls - Sm mag.	T.S. 136' #2127
												Mag rx - 20-30% Mag; Py - 2-5% in Mag rx.	
14	144	153	8.3	92	20	1500	20.10		2316	145-150	- do -	Hvy mag rx - 149 - 153.	4' Mag Rx
					0.01% 240	0.09% 3100	49.83		2317	150-155		60-70% Mag, Tr Cpy - 1/2 - 1% Py -	
												Minor Py - Tr Cpy - Sm Mag in sil ls.	
15	153	161	8.0	100	40	550	34.28		2318	155-160	Mag rx & sil ls.	Mag (hvy) rx 153-158 - 40% Mag ave.	5' Mag rx.
											w/ Sm. Qdp	Mag forms irreg patches; loc hvy Pep. in +45°	
												fracs & vnlts; Bkg only mod in sil ls.	
												Qdp. 161-162	
16	161	171	8.5	85	20	550	13.89		2319	160-165	Qdp - sil ls -	Qdp 161-163; sil ls w/ sm Mag 163 - 164.5;	1½' Mag rx.
					10	550	11.13		2320	165-170	& Mag rx.	Mag rx - 164.5 - 166; Qdp 156-171.	
												Mag rx - 50% Mag - cut by sm CaCO3 filled fracs	
												→ Minor ox along sm fracs, Frac 2;	
												169-170 high Amph Qdp (Zeno)	
												Qdp in gen higher in amph 20%.	
												Tr Py along frac surfs	

OG #3-DDH

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Oro Grande
PROPERTY: Superior - Lavacek

STARTED 10/8/64
COMPLETED 10/27/64
GEOLOGIST: A.J. Perry
TOTAL DEPTH: 1024.5
TYPE DRILL:
DRILL CONTRACTOR: E.J. Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

X BER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
17	171	180	8.5	95	15	800			2321	170-175	Qdis porp.	15% FeMag rx; Sm ox 60° → v. fracs;	
					15	550			2322	175-180		Sil 1-2.; Arg 1-2; Py Tr → ½%.	
18	180	188.8	8.4	95	20	250			2323	180-185	-do-	15% FeMag rx cont; Lt-yl-rd-brn frac ctgs, w/	
					15	1000			2324	185-190		Sm blk Mn? blebs on fracs;	
												REMAINDER OF DDH LOGGED BY F. MACK.	

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: Laura Claim

STARTED Oct 8
COMPLETED Oct 27
GEOLOGIST: FRANK MACK
TOTAL DEPTH: 1024.5'
TYPE DRILL: Diamond UGN
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION VERTICAL
COORDINATES:
ELEVATION:

THE SUPERIOR OIL CO.
NOV 9 1964
MINERALS DIVISION

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu	Fe %				ROCK TYPE	DESCRIPTION	REMARKS
	188.8	198.2			10	400			2325	190-195	QDP	Lt Gray, SiO_2 1, Fe Mags 10-15%	Pyrite Tr-<1%
					10	150			2326	195-200		Fractures 45°-60°, w/ Limonite Staining	
												& Pyrite	
													HORNBLENDE RASITE
0	198.2	207.2			20	0.11% 2600			2327	200-205	QDP & Tactite	~~QDP 198.2-200.5~~	T.S. 207.2' #2126
												2 Narrow Zones Tactite w/ 35-40%	Pyrite Tr-Loc 1%
												Magnetite (1.5') Also Tr Chal & Bornite	Tr Chal & Bornite @204
												@ 204 Within Tactite. QDP DK Gray	
												Adj. To Tactite	
1	207.2	215			10	400			2328	205-210	QDP	Do, No Tactite	Pyrite - Tr
					15	200			2329	210-215			
2	215	223.8			70	1500	17.53		2330	215-220	Tactite &	QDP 215-216 (Dk Gray, Same As Above)	Pyrite - Tr-Loc 2%
					20	0.25% >3100	15.46		2331	220-225	Magnetite	Tactite & Magnetite Rock Zones	
												Alternate Throughout Run. Fractures	
												Filled With Calcite & Pyrite. Tactite	
												Lt. Gray - Dk Br.	
3	223.8	232.5			10	0.54% >3100	10.22		2332	225-230	Tactite &	Dk Gray - Black, Little Limonite	Pyrite - 224-231.5-10%
					10	0.39% >3100	13.99		2333	230-235	Magnetite	Staining On Fracs. Some Qtz. In	Chal-230-31, Tr-<1%
												Fracs. A Little Loc Garnetization	
4	232.5	241.5			60	0.36% >3100	20.27		2334	235-240	Tactite	Same As Above w/ Decrease In Magnetite	Pyrite [illegible]
													Chal-239-241 [illegible]
5	241.5	250.5			70	0.47% >3100	14.09		2335	240-245	Tactite	Lt Gray, 5% Magnetite	Pyrite Tr-Loc [illegible]
					0.02% 240	0.32% 3100	14.10		2336	245-250			[illegible]

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: Laura Claim

STARTED Oct 8, 1964
COMPLETED Oct 27, 1964
GEOLOGIST: FRANK MACK
TOTAL DEPTH: 1024.5'
TYPE DRILL: UGN, Diamond
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION VERTICAL
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu	Fe %				ROCK TYPE	DESCRIPTION	REMARKS
26	250.5	260			150	0.60% >3100	22.65		SEE SPEC. RESULTS 2337	250-255	Tactite	Lt. Gray, 10% Magnetite	Pyrite-250.5-252.5
					120	1500	21.87		2338	255-260			30% Remainder OC
													Prun Tr-5%
													Chal Tr @ 250.5
27	260	268.5			180	800	18.21		2339	260-265	Tactite	5% Magnetite	Pyrite 265.2-267.3 Tr-10% Remainder Tr-Loc 5%
					120	0.16% 3100	32.70		2340	265-270			Bornite(?) Tr @ 267.4
28	268.5	278.0			15	0.02% >3100	52.40		2341	270-275	Tactite	Magnetite, 15%, More Quartzose	Pyrite 271-271.5-10%
					0.005% 15	3.25% >>3100	25.02		2342	275-280			Chal-276-278, Tr-5% Loc
													Some Bornite
29	278	287			180	3.91% >>3100			2343	280-285	Tactite	Magnetite 5%, Locally Hvy. Garnetization	Pyrite 2% Loc 30% 278-81 285-286
													Chal-278-279 Tr-4% Loc
													280-283 Tr-3% Loc
													Some Bornite
													MoS_2(?) 284 Tr
													Chal, Tr @ 284
30	287	296			180	0.47% >3100			2344	285-290	Tactite	Magnetite 6%,	Pyrite-5%
					40	0.16% 3100	21.68		2345	290-295			Chal-Tr @ 287
													Tr-290-291
													" 294-295.
													Tr MoS_2 @ 289
31	296	305			30	1500			2346	295-300	Tactite	Magnetite (25% From 296.5-297.5)	Pyrite-Tr-1%
					9	1300			2347	300-305		Some Hvy Loc. Garnetization, Lt Gray-Dk. Brown	

Hole 06 #3
Sheet 6 of 17

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: Laura Claim

STARTED Oct 8, 1964
COMPLETED Oct 27, 1964
GEOLOGIST: Frank Mack
TOTAL DEPTH: 1024.5
TYPE DRILL: UGN
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION VERTICAL
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu	Fe %				ROCK TYPE	DESCRIPTION	REMARKS
52	305	315			12	0.12% 2100	30.93		2348	305-310	Tactite	Med Brown, Some Heavy Loc Garnetization	Pyrite - 5-10%
					30	0.45% 2100	39.40		2349	310-315		Magnetite - 312.5-315, 80-100%, Some	Chal - Tr @ 312.5
												Narrow Zones O.C Magnetite.	
53	315	324.5			12	0.05% 3000	42.81		2350	315-320	Magnetite	Tactite From 322-324, Some Magnetite.	Pyrite - 10-15%
					6	0.30% 4300	31.52		2351	320-325		Magnetite Tr - 80% From 315-322	Chal - Tr @ 322.5
													T.S. 320' #2125
54	324.5	334.5			45	0.31% 4300	20.68		2352	325-330	Magnetite	10-90% Magnetite 324.5-331	Pyrite - 5-15% 324.5-331
					135	0.22% 1400	21.28		2353	330-335		Tactite w/ Hvy Garnetization 331-334.5	" Tr - 5%, 331-334.5
55	334.5	343.4			45	0.51% 4300	28.31		2354	335-340	Tactite	334.5-338.5 Hvy Garnetization Tr-5% Pyrite	338.5-343.4 10-65%
					3	0.41% 4300	31.52		2355	340-345		Magnetite 5% (Entire Run)	Pyrite
													Chal - Tr 339.2-342.9
56	343.4	352.1			3	700	18.32		2356	345-350	Tactite	Hvy. Garnetization Entire Run	Pyrite Tr - Loc 20% @
													343.4-344.1
57	352.1	361.4			6	960	18.64		2357	350-355	Tactite	Same As Above	Pyrite Tr - Loc 10% 354.7-356.2, Tr Chal @
					3	0.02% 2100	19.60		2358	355-360			355.8
58	361.4	370			10	800	14.64		2359	360-365	Tactite	Same As Above w/ Some Calcite	Pyrite - Tr - 4%
					10	550	16.33		2360	365-370		Fracture Filling. 0.3' Quartz (361.4-361.7)	
59	370	378.7			10	800	17.03		2361	370-375	Tactite	Same As Above, w/ Some Scattered Magnetite	Pyrite - Tr - Loc
					20	1500	14.97		SEE SPEC. RESULTS 2362	375-380			1.5% 375.2-376.2
												T.S. 378.2 #2124	Chal & Chrysocolla
													@ 378.7

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: Laura Claim

STARTED Oct 8, 1964
COMPLETED Oct 27, 1964
GEOLOGIST: F MACK
TOTAL DEPTH: 1024.5
TYPE DRILL: UGN
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION VERT.
COORDINATES:
ELEVATION:

X SER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu	Fe%				ROCK TYPE	DESCRIPTION	REMARKS
0	378.2	387.5			180	800	15.35		2363	380-385	Tactite	Med. Brown, Hvy Garnetization w/Calcite Fracture Fillings	Pyrite - 3%
1	387.5	397.5			70	1000	17.33		2364	385-390	Tactite	Same As Above, No Calcite	Pyrite - 5-10%
					70	1500	21.58		2365	390-395			Chal-Tr @ 388.5
													" " " 391.5
2	397.5	408.5			20	800	18.52		2366	395-400	Tactite	Same As Above	Pyrite - Tr - Loc
					20	800	14.54		2367	400-405			15% @ 397.5-399.3
					15	400	17.62		2368	405-410			
3	408.5	416.4			15	550	29.35		2369	410-415	Tactite	Same As Above	Pyrite - Tr - Loc. 20%
4	416.4	425			15	550	21.56		2370	415-420	Tactite	Same As Above w/Some Patches of SiO_2	Pyrite - Tr - Loc 10%
					90	700	18.12		2371	420-425			
5	425	434			270	700			2372	425-430	Tactite	Same As Above	Pyrite - Tr - Loc 10% @
					120	540			2373	430-435			433-433.5
6	434	443.1			45	0.60% >4300	31.91		2374	435-440	Tactite & Magnetite	Tactite Same As Above 434-437.6	Pyrite 30% 437.6-443.1
					3	0.26% 4300	53.58		2375	440-445		Magnetite From 437.6-443.1, 70%	Pyrite Tr - Loc 30% 436.6-437.6
												No SiO_2	Chal - Tr @ 437.6-
													438.6 & 442
7	443.1	452			3	0.32% 4000	63.63		2376	445-450	Magnetite	90% Magnetite, 8-9% Pyrite With Some Sm Patches Of Garnet	Chal - 445-446 Tr
8	452	461.2			3	0.07% >4300	63.04		2377	450-455	Magnetite & Tactite	452-456 Magnetite 90%, Pyrite 5%,	Chal - Tr @ 456
					3	1400	40.20		2378	455-460		Garnet Incl. 5%. 456-461.2 Tactite	
												w/10% Magnetite, 5% Pyrite, Some Hvy	
												Garnetization SiO_2 Patches	

Hole 06 #3
Sheet 5 of 17

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: Laura Claim

STARTED: Oct 8, 1964
COMPLETED: Oct 27, 1964
GEOLOGIST: F. Kale
TOTAL DEPTH: 1024.5
TYPE DRILL: UGN
DRILL CONTRACTOR: Longyear

BEARING:
INCLINATION: VERT.
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu	Fe %				ROCK TYPE	DESCRIPTION	REMARKS
9	461.2	470			45	0.28% 2400	41.37		2379	460-465	Magnetite & Tactite	Heavily Garnetized Tactite Mixed	Pyrite 5%
					3	0.64% 4300			2380	465-470		Within Magnetite. Magnetite 60% Total	Chal-Tr Throughout
													Entire Run
0	470	478.5			3	0.08% >4300	62.65		2381	470-475	Magnetite	85% Magnetite, 10-15% Pyrite w/	Chal Tr @ 472 &
					3	0.31% 3600	62.04		2382	475-480		Some Calcite Frac Fillings & Scattered	474
												Patches Tactite & Garnet	
1	478.5	487.3			3	0.12% >4300	57.92		2383	480-485	Magnetite & Tactite	75% Magnetite, ±25% Pyrite (@ 480.7-	Chal-Tr @ 479.6,
												481.5 100% Pyrite) From 478.5-485.8.	481.1, & 484
												Tactite From 485.8-487.3 w/5% Pyrite,	
												Garnet, & Magnetite	
2	487.3	497			3	0.38% >4300	29.55		2384	485-490	Tactite	Lt. Brown, Hvy Garnetization, Some Fracs	Pyrite-5-10%
					3	0.19% 4300	21.47		2385	490-495		Filled With Calcite, Some Scattered Magnetite	Chal-480 & 496
												And Quartz	(Tr)
3	497	505.8			3	0.35% 3600	34.87		2386	495-500	Magnetite & Tactite	497-498.5 Tactite, 498.5-505.8 Magnetite	Pyrite-Tr-20% 497-498.5
					3	0.12% >4300	57.62		2387	500-505		85% Magnetite, 15% Pyrite, Some Calcite	Chal-Tr @ 498,
												Within Cavities	@ 500, 501, 503
4	505.8	515			6	0.24% >4300	53.19		2388	505-510	Magnetite	w/1½' Tactite @ 509.3 To 510.8, & 413.5-515	Pyrite Tr-Loc 50%
					3	0.16% >4300	41.37		2389	510-515		Magnetite 90% & 5-10% Pyrite,	@ 514-515
													Chal-Tr @
												T.S. 506.3 # 2123	506.5, 514.5
5	515	525			3	0.14% >4300	51.61		2390	515-520	Magnetite & Tactite	Some Narrow Zones Tactite 515-516 &	Pyrite-Tr-50%
					3	0.36% >4300	44.23		2391	520-525		518.8-521.4. 85-90% Magnetite (Rem. of Run)	@ 519.9-520.4
												10-15% Pyrite Within Magnetite Zone	Chal-Tr @ 520.5 & 522

Hole 0003
Sheet 9 of 17

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: Laura Claim

STARTED Oct 8, 1964
COMPLETED Oct 27, 1964
GEOLOGIST: F. MACK
TOTAL DEPTH: 1024.5
TYPE DRILL: UGN
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION VERT.
COORDINATES:
ELEVATION:

OX SER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu	Fe%				ROCK TYPE	DESCRIPTION	REMARKS
6	525	535			90	0.22% >4300	26.01		2392	525-530	Tactite & QMP	Magnetite - 525-526 (50% Pyrite 50% Magnetite)	Pyrite Tr-2% 526-529
					3	0.38% 4300	31.42		2393	530-535		QMP-526-529-Very Little Altered	" Tr-Loc 20% @
												Tactite 529-535, Hvy. Garnetization	532.5-534
													Chal-Tr @ 526 &
													534
7	535	545			3	540	17.43		2394	535-540	Tactite	Same As Tactite Above	Pyrite - 5%
					6	0.18% 2100	20.88		2395	540-545			Chal-Tr @ 538.9 &
													540.9
8	545	554			6	0.34% 4300	17.93		2396	545-550	Tactite	Same As Above	Pyrite - 3%
					6	0.07% 2100	19.76		2397	550-555			Chal-Tr @ 547.2 &
													548
9	554	562.2			6	0.31% 2400			2398	555-560	Tactite	Same As Above	Pyrite-Tr-Loc 5%
0	562.2	570.8			3	1000	17.73		2399	560-565	Tactite	Same As Above w/Small Zones Of	Pyrite-Tr.-Loc 15%
					12	0.14% 3000	17.93		2400	565-570		Silicification & Epidote, Less Garnetization.	@ 567.3-569.5
												Color Of Siliceous Area, Lt Gray, Little Fracturing	Chal-Tr @ 565.5
1	570.8	580			22	700	6.30		2201	570-575	Tactite	Lt-Dk Gray, Fractures Like Flint, Frac.	Pyrite-570.8-577.9
					30	960			2202	575-580		Surfaces Coated With Calcite, Also Some Epidote	Tr-Loc 5%
												Little Garnetization, Very High Silicification	577.9-580-5% Tr
												Not Much Fracturing	Loc 80% @ 579.4-
													580
2	580	589.4			12	960			2203	580-585	Tactite	More Garnetization Than The Above,	Pyrite-Tr-Loc
					18	700			2204	585-590		Still Some Silicification, Moderate Fracturing	5-20% @ 582.5
												Fractures Filled w/ Calcite	586.4.

Hole Ch#3
Sheet 12 of 17

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: Laura Claim

STARTED Oct 8, 1964
COMPLETED Oct 27 1964
GEOLOGIST: E MACK
TOTAL DEPTH: 1024.5'
TYPE DRILL: UGN
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION VERT.
COORDINATES:
ELEVATION:

X DER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu	Fe%				ROCK TYPE	DESCRIPTION	REMARKS
3	589.4	600			22	700			2205	590-595	Tactite	Mixed Siliceous & Hvy Garnetized Rock Very	Pyrite-5-10%
					30	360			2206	595-600		Similar To Box Number 62 w/ Less Silicification	
4	600	608.5			15	0.23% 2000	23.02		2207	600-605	Tactite	Same As Above w/ Less Silicification	Pyrite-601-606
					4	1000			2208	605-610			10-80%
													Remainder Of Run
													Tr-Loc 10%
5	608.5	615			70	0.24% 2000			2209	610-615	Tactite	Same As Above w/ More Siliceous Zones	Pyrite-5-10% (608.5
												Some Fractures Filled With Calcite, Scattered	612.1). 10% 614-615
												Patches Of Epidote In Siliceous Zones	Chal-Tr @ 611.7 &
													613.1
6	615	625			40	850			2210	615-620	Tactite	Same As Above, Siliceous Zone Has	Pyrite-615-618.5
					8	0.65% 4200			2211	620-625		More Epidote	Tr-6%
													618.5-625, 10-40%
7	625	634			20	0.54% 4200			2212	625-630	Tactite	Same As Above w/ Less Siliceous Zones	Pyrite-625-627.5
					4	0.59% 4200			2213	630-635		Fracture Surfaces In Siliceous Mtl Altered	10-30%
												To Talc. Some Scattered Magnetite (Minor Inc)	627.5-632-5-15%
													632-634-7.5%
													Chal-Tr @ 626.6, 629.1,
													633.5
8	634	645.1			40	0.38% 2000			2214	635-640	Tactite	Lt Gray To Tan, Very Highly Altered	Pyrite-Tr-10%
					4	0.18% 2000	34.08		2215	640-645		Zones, Fractures Filled With Quartz, Calcite,	Magnetite 5%
												Some Hvy Garnetized Zones	642-645.1

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: Laura Claim

STARTED Oct 8, 1964
COMPLETED Oct 27, 1964
GEOLOGIST: F MACK
TOTAL DEPTH: 1024.5'
TYPE DRILL: UGN
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION VERT.
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu	Fe %				ROCK TYPE	DESCRIPTION	REMARKS
69	645.1	654			4	0.48% 4200			2216	645-650	Tactite	Mixed Garnetized & Silicified Rock. The Silicified	Pyrite - 5-40% 646.5
					4	0.34% 4200			2217	650-655		Rock Is Moderately Fractured. Some Narrow	650.5
												Zones Of Magnetite Within Run (645.1-646.1	Remainder - 4%
												80%)	Chal - Tr @ 648,
													649.5, 650, 650.5
70	654	665.5			4	0.19% 2000			2218	655-660	Tactite	Same As Garnetized Tactite Above With No	Pyrite - Tr - Loc 10%
					4	0.23% 2900			2219	660-665		Siliceous Zones, Some Calcite Fracture	@ 654-663.5
												Filling	15% @ 663.5-665.5
												T.S. 659.5 #2122	Chal - Tr @ 658, 662
													661, & 663.5-665.5
71	665.5	674.5			4	0.33% 2900			2220	665-670	Tactite	Very Highly Altered Rock 667-671, Mod Frac.	Pyrite - 665.5-667.5
					4	0.51% 4000			2221	670-675		Frac. Surfaces Covered With Calcite, Some	20-30% " "
												Scattered Magnetite, Remainder Composed Of	Magnetite - 20%
												Magnetite & Pyrite. Pyrite Surfaces Exposed In	672-674.5, 30% Pyrite
												open Frac. Coated With Transparent Mineral Substance	Magnetite 10%
												(No EFFVS.) Some Limonite On Pyrite (672-674.5)	Chal - Tr @ 666.5
72	674.5	682			4	0.40% 3000			2222	675-680	Tactite	No Garnetization, Mostly Magnetite & Pyrite	Pyrite - 674.5-676.5
												Non-Mineralized Tactite Silicified.	25%, Remainder 5%
												Quartz Veinlets In Mineralized Portions	Magnetite - 25%
													Chal - 679-682 Tr 1/2%
73	682	694.5			15	1.45% >4000			2223	680-685	Tactite	Tactite More Garnetized & Contains	Pyrite - 5-10%
					4	2100			2224	685-690		More Magnetite Then Previous Box.	Chal - Tr @ 691
					4	0.54% 4000			2225	690-695			692 (w/Fracture) &
													694.5

Hole 3048
Sheet 12 of 17

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Otogrande
PROPERTY: Laura Claim

STARTED Oct 8, 1964
COMPLETED Oct 27, 1964
GEOLOGIST: F. MACK
TOTAL DEPTH: 1024.5
TYPE DRILL: UGN
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION VERT.
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu	Fe %				ROCK TYPE	DESCRIPTION	REMARKS
74	694.5	703.5			4	0.24% 3000			2226	695-700	Tactite	Garnetized & Silicified, Fractures Filled w/	Pyrite-694.5-696.5
					40	0.26% 2100			2227	700-705		Calcite & Pyrite. Some Scattered Magnetite	15-20%, 701.5-
													703.5-15%
													Chal-Tr 695.5-695.5,
													696, 703
75	703.5	712.2			40	850			2228	705-710	Tactite	Garnetized From 703.5-704.5, Remainder	Pyrite-25% 703.5-
												Silicified. w/Little Fracturing, Lt-Med Gray.	704.5, Tr-Loc 20%
												Calcite Fracture Filling	@ 711.8-712.2
76	712.2	721			8	0.43% 3000			2229	710-715	Tactite	712.2-717 Dk Gray w/Minor Amer. Magnetite,	Pyrite-5% 712.2-
					15	0.43% 2800			2230	715-720		Remainder Med Gray	717, Tr-2% 717-721
													Chal & Pyrite-Tr @ 713.2
77	721	728.6			40	600			2231	720-725	Tactite & QDP	Silicified Tactite 721-723, Lt Gray	Pyrite-Tr-2% (Entire
					40	850			2232	725-730		QDP w/Some Mixed Tactite, Dk Gray, Lt Gray	Run)
												Toward Lower Contact With Tactite 723-	
												728.6. Some Quartz Veins. QDP Is Very	
												Fine Grained	
78	728.6	737			60	850			2233	730-735	Tactite	Silicified For Total Length, Lt Gray	

HOLE DD #3
SHEET 3 OF 7

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

OG #3

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: Laura Claim

STARTED Oct 8, 1964
COMPLETED Oct 27, 1964
GEOLOGIST: F MACK
TOTAL DEPTH: 1024.5'
TYPE DRILL: UGN
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION VERT.
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu	Fe%				ROCK TYPE	DESCRIPTION	REMARKS
78	728.6	737			60	550			2233	730-735	Tactite	Med. Gray, Mod. Fracture Containing Pyrite, Quartz, & Calcite, Rock Generally Highly Silicified	Pyrite - <1%
79	737	743			15	1700			2234	735-740	Tactite & QDP	Tactite 737-740, Dk Gray Little Fracturing, Fracs Filled w/ Pyrite & Calcite Some Patches Of Epidote. QDP 740-743, SiO_2-1, Fe Mags-10%, Argillization-1-2	Pyrite - 737-740, 2-3% 740-743, 3%
					15	800			2235	740-745			
80	743	757			8	450			2236	745-750	QDP	Same As Above w/ Some Calcite Fracture Filling. Last 0.6', Tactite TS @ 748' # 2121	Pyrite - 1-2%
					15	800			2237	750-755			
81	757	767.7			180	550			2238	755-760	Tactite	Lt. To Dk. Gray, Highly Siliceous, Some Bedding Planes, Fracturing Fairly Hvy With Surfaces Covered w/ Pyrite, Quartz, & Calcite.	Pyrite - 2-4%
					8	850			2239	760-765			
					40	850			2240	765-770			
82	767.7	785.5			15	850			2241	770-775	QDP	Same As QDP Above w/0.7' Tactite @ Very Beginning Of Box, Quartz In QDP About 2	Pyrite - 2-3%
					150	650			2242	775-780			
					30	220			2243	780-790			
83	785.5	794			30	550			2245	790-795	Tactite & QDP	Tactite Same As Above w/ Some Gypsum Along Fracture Planes, QDP Same As Above w/ More Pyrite, More Highly Weathered	Pyrite - QDP - 4% Tactite - Tr - 1%
84	794	802			(60?) 15	(150?) 15			2246	795-800	Tactite	Same As Above, w/ No Calcite More Bedding	Pyrite - Tr - 1%

Hole OG #3
Sheet 14 of 17

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: Laura Claim

STARTED Oct 28 1964
COMPLETED Oct 27
GEOLOGIST: F. MACK
TOTAL DEPTH: 1024.5'
TYPE DRILL: LGN
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu	Fe %				ROCK TYPE	DESCRIPTION	REMARKS
5	802	811.6	9.9	95	15?	75?			2247	800-805	Tactite	Lt Gray - Dk Gray, Bedded, Fractures	Pyrite - Tr - 1%
					120	450			2248	805-810		Filled W/ Pyrite TS 808' # 2120	
6	811.6	820.7	8.2	90	100	700			2249	810-815	Tactite	Same As Above W/ Highly Altered Zone	Pyrite - 1-2% 811.6-817.5
					50	700			2250	815-820		From 811.6-817.5, Kaolinite Quite Hvy In This	Chal & Galena Tr " - "
												Zone Also Some Calcite	Pyrite - 817.5-820.7 Tr -
													Loc 10% @ 818.5
7	820.7	[illegible]	7.5	90	150	95			2251	820-825	Tactite	Same As Above, Not As Highly Altered	Pyrite - Tr - Loc 1%
					100	0.16% 2100			2252	825-830		W/ Some Gypsum Frac Filling	
8	[illegible]	[illegible]	8.1	90	35	0.20% 2100			2253	830-835	Tactite	Same As Above, Less Altered, No Bedding	Pyrite - Tr - Loc 15% @
					10	0.16% 2900			2254	835-840		Features As In Previous Boxes, Some Magnetite	836-837.5, Average For
												Some Garnetization	Entire Run 4%
9	838	847.6	9.0	94	10	1800			2255	840-845	Tactite	Lt. Gray - Dk Brown, Hvy Silicification &	Pyrite - Tr - Loc 5%
					14	0.20% 2100			2256	845-850		Garnetization, Fracs Contain Pyrite & Gypsum	Avg % Entire Run 2%
10	847.6	856.6	9.3	93	38	0.12% 2100			2257	850-855	Tactite	Same As Above	Pyrite - Avg Entire Run 3-4%
11	856.6	865.6	8.1	81	100	0.48% 2100			2258	855-860	Tactite	Same As Above W/ More Garnetization Than	Pyrite - Avg Entire Run 5%
					14	0.08% 2100			2259	860-865		Box 90	
12	865.6	875	9.2	96	38	0.41% 4200			2260	865-870	Tactite	Same As Above W/ Less Garnetization And	Pyrite - Avg Entire
					75	0.12% 2100			2261	870-875		More Silicification	Run 1-2%
13	875	884.5	8.9	96	25	0.15% 2900			2262	875-880	Tactite	Same As Above W/ Calcite & Gypsum Frac Fillings	Pyrite - Avg Entire Run 3%

Hole OG #3 Sheet 15 of 17

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Ore Grande
PROPERTY: Laura Claim

STARTED Oct. 8, 1964
COMPLETED Oct 27 1964
GEOLOGIST: FRANK MACK
TOTAL DEPTH: 1024.5'
TYPE DRILL: UGN
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu	Fe %				ROCK TYPE	DESCRIPTION	REMARKS
94	884.5	887	2.0	80	75	0.20% 2100			2264	885-890	Tactite	Med Gray-Dk Brown, More Silicification Than Garnetization, Fracs Filled w/ Pyrite & Gypsum	Pyrite-5% Avg. Entire Run
95	887	896	7.8	87	25	0.24% 2900			2265	890-895	Tactite	Same As Above w/ More Garnetization	Pyrite. 4% Avg. Entire Run
96	896	905	8.5	94	25	0.12% 2100			2266	895-900	Tactite	Same As Above w/ Most Of Run Garnetized, Some Quartz Veins, & Magnetite	Pyrite-6-7% Avg. Entire Run
					38	0.09% 2100			2267	900-905			
97	905	913.7	8.7	93	35	0.16% 2900			2268	905-910	Tactite	Same As Above w/ Increased Amts. Of Magnetite TS @ 910' #2119 T.S. 910 #2119	Pyrite-5% Avg. Entire Run
					25	0.06% 4200			2269	910-915			
98	913.9	923	8.4	92	25	0.06% 2100			2270	915-920	Tactite w/ Some QMP	Tactite Same As Above w/ QMP 917.3-920.3 Very Highly Altered, Argillization 4, Quartz 1-2	Pyrite-5% (Tactite) 2-3% (QMP)
					38	1700			2271	920-925			
99	923	932.3	8.6	93	75	200			2272	925-930	Tactite ~~w/ Some~~ And QMP	Tactite Same As Above. QMP Less Highly Altered. QMP Above 85% Of Box. SiO_2-3-4 Argillization 1-Loc 4	Pyrite-2% Entire Run Avg.
100	932.3	941.1	8.2	93	38	200			2273	930-935	QMP	Highly Altered, SiO_2 2-Loc 4, Argillization 3-4, Some Gypsum Frac Filling. TS 936' #2112	Pyrite-1% Avg. Entire Run
					25	100			2274	935-940			
101	941.1	949.8	8.2	94	75	100			2275	940-945	QMP	Same As Above w/ Higher % Core SiO_2 Floated (60%) Raised As 4	Pyrite-Tr-<1%
					50	150			2276	945-950			
102	949.8	959	8.2	87	170	200			2277	950-955	QMP	Same As Above w/ Less Argillic Alteration & A Little More Silicification, Fe Mags 5% Argillization 2, Some SiO_2 Veins.	Pyrite-Tr
					100	200			2278	955-960			

Hole OG #3 Sheet 16 of 17

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Oro Grande
PROPERTY: Laura Claim

STARTED Oct 8, 1964
COMPLETED Oct 27, 1964
GEOLOGIST: FRANK MACK
TOTAL DEPTH: 1024.5
TYPE DRILL: UGN
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu	Fe %				ROCK TYPE	DESCRIPTION	REMARKS
03	959	968.9	8.7	88	75	200			2279	960-965	QMP	Lt-Dk Gray, SiO_2-3-Loc 4, Argillization 2-3,	Pyrite-Tr-<1%
					140	400			2280	965-970		K Feld-1-2, Fe Mags 4%	Avg. Entire Run
04	968.9	977.9	8.6	96	20	400			2281	970-975	QMP	Same As Above, Fe Mags-10%, Some	Pyrite-1% Avg.
					100	1000			2282	975-980		Gypsum In Fracs.	Entire Run
05	977.9	986.5	8.2	95	100	100			2283	980-985	QMP	Same As Above, Fe Mags-5%, Argillization	Pyrite-1% Avg.
												2,	Entire Run
06	986.5	995	8.0	94	75	400			2284	985-990	QMP	Same As Above, SiO_2 2-Loc 4, Fe Mags 5-10%	Pyrite-Tr-<1% Avg.
					50	400			2285	990-995			
07	995	1004	8.2	91	75	850			2286	995-1000	QMP	Same As Above, SiO_2 1-2, Argillization 1-Loc 3	Pyrite-Tr-½%
					100	400			2287	1000-1005		Fe Mags-5%	
									SEE SPEC. RESULTS				
08	1004	1013	8.5	94	50	400			2288	1005-1010	QMP	Same As Above	Pyrite-Tr
					75	200			2289	1010-1015			
09	1013	1022.1	8.4	92	75	300			2290	1015-1020	QMP	Same As Above, SiO_2 2-3, Argillization 1-2	Pyrite-Tr-1% Avg
												Fe Mags-1%	Entire Run
10	1022.1	1024.5	2.2	90	75	400			2291	1020-1024.5	QMP	Same As Above T.S. 1022'	Pyrite-Tr
												# 2117	
												DACITE	
												CORE DESTROYED EXCEPT FOR	
												HI GRADE INTERVAL ±120'-190'	
												WHICH WAS DELIVERED TO TUCSON OFFICE	

Hole 06#3
Sheet 17 of 17

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Organ Hill
PROPERTY: OX #5

STARTED 11/23/64
COMPLETED
GEOLOGIST: E. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond - Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

OG #7

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
1	52	62	5.5	55	40	1300			2901	52-60	QMP	Lt Gray, SiO_2-1, Argillization 2, Fractures 50°- Vertical Filled w/Limonite & SiO_2. Scattered Ames (Tr) Magnetite. Fairly Hvy Ames Fine	
2	62	74.5	8.6	69	40	1300			2902	60-70	QMP	Same As Above, w/Tr of Magnetite	
3	74.5	84	6.8	73	60	1000			2903	70-80	QMP	Same As Above, w/No Magnetite	
								SEE SPEC. RESULTS					
4	84	93	7.0	78	60	1000			2904	80-90	QMP	Same As Above w/Tr. Magnetite, Argillization 3-4	
5	93	102	6.8	76	30	1000			2905	90-100	QMP	Same As Above w/No Magnetite	
6	102	111.1	6.4	70	30	1000			2906	100-110	QMP	Same As Above w/Tr Spec. Hem. & Magnetite	Pyrite - Tr @ 103
7	111.1	120.3	6.9	75	60	1300			2907	110-120	QMP	Same As Above w/Tr Spec. Hem, No Magnetite	
8	120.3	130	7.3	75	15	500			2908	120-130	QMP	Same As Above w/Very Little Limonite Staining	
9	130	139.5	7.0	82	40	1000			2909	130-140	QMP	Same As Above w/SiO_2 2-Loo 3	
10	139.5	148.7	8.3	81	125	1300			2910	140-150	QMP	Same As Above w/Increasing Ames. Limonite Staining, Argillization 2-3. ~~Increase~~ Some Spec. Hematite	Pyrite - Tr - 1% 143-144
11	148.7	162.8	9.5	67	60	1300			2911	150-160	QMP	Same As Above w/No Hematite	Pyrite Tr

Hole OG #7 Sheet 1 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: OX #5

STARTED 11/23/64
COMPLETED
GEOLOGIST: F. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

OX BER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
2	162.8	171	6.4	78	75	0.17% 1500			2912	160-170	QMP	Same As Preceding Box	Pyrite-Tr
3	171	182	8.2	74	125	0.155% 1500			2913	170-180	QMP	Same As Above	Pyrite-Tr-Loc 3% @ 174
4	182	190.9	7.6	85	60	1500			2914	180-190	QMP	Same As Above	Pyrite-Tr-1% Diss.
5	190.9	199.1	6.6	80	150	1500			2915	190-200	QMP	Same As Above	Pyrite-1%-Loc 5% Diss
6	199.1	208.2	7.9	87	150	1500			2916	200-210	QMP	Same As Above w/Tr. Magnetite	Pyrite-Tr-1%
7	208.2	215.5	7.5	90	40	1300			2917	210-220	QMP	Same As Above	Pyrite-1%
8	215.5	224	7.4	87							QMP	Same As Above w/0.5' Diorite @ 121-121.5	Pyrite-Tr-1%
9	224	231.6	6.6	87	150	1300			2918	220-230	QMP	Same As Above w/No Magnetite	Pyrite-1%
0	231.6	239.8	6.7	82	120	1300			2919	230-240	QMP	Same As Above w/Tr Magnetite	Pyrite-Tr-Loc 1%
1	239.8	248.5	7.5	86	120	1000			2920	240-250	QMP	Same As Above w/Some $CaCO_3$ Frac. Filling.	Pyrite-Tr-Loc 1%
2	248.5	257.5	9.3	84	60	500			2921	250-260	QMP	Same As Above w/SiO_2 2-3 Argillization 1	Pyrite-Tr
3	257.5	266	7.7	90	150	1000			2922	260-270	QMP	Same As Above	Pyrite-Tr

Hole OG #7
Sheet 2 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: OX #5

STARTED 11/23/64
COMPLETED
GEOLOGIST: F Mack
TOTAL DEPTH:
TYPE DRILL: Diamond Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
24	266	274.2	7.1	86							QMP	Same As Preceding Box	Pyrite-Tr-Loc 1% Mostly Diss.
25	274.2	283.1	7.6	85	150	1300			(2923)	270-280	QMP	Same As Above	Pyrite-Tr
26	283.1	292.3	6.2	67	40	1000			(2924)	280-290	QMP	Same As Above	Pyrite-Tr-1% In Fracs & Diss
27	292.3	301.6	7.7	82	150	1300			2925	290-300	QMP	Same As Above w/Tr Magnetite @ 292.5	Pyrite-Tr-1%
28	301.6	310.5	8.6	77	125	1000			2926	300-310	QMP	Same As Above w/No Magnetite	Pyrite-Tr
29	310.5	319.1	6.7	78	125	1000			(2927)	310-320	QMP	Same As Above porph. Andesite	Pyrite-Tr
30	319.1	328.6	7.6	80	125	1000			(2928)	320-330	QMP	Same As Above	Pyrite-Tr-Loc 1%
31	328.6	336.1	5.7	76	60	500			(2929)	330-340	QMP	Same As Above w/Increase In SiO_2	Pyrite-Tr
32	336.1	345	7.6	85	40	1300			(2930)	340-350	QMP	Same As Above w/Argillization Loc 3, Some $CaCO_3$ On Frac Surfaces	Pyrite-Tr Chal(?) Tr @ 337.5
33	345	354.5	7.6	80							QMP	Same As Above	Pyrite-Tr-<1%
34	354.5	363.1	8.6	88	60	750			2931	350-360	QMP	Same As Above	Pyrite-Tr
35	363.1	372.3	8.1	88	40	500			2932	360-370	QMP	Same As Above w/An Altered Zone From 368.5-372.3 Argillization 3-Loc 4, SiO_2 2, K-Fell 2-3, On Essentially Unaltered Zone, Frac Surfaces Are Heavily Alt'd Tr Magnetite	Pyrite-Tr-1% Chal-Tr @ 365

Hole OG #7
Sheet 3 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Oro Grande
PROPERTY: OX #5

STARTED 11/23/64
COMPLETED
GEOLOGIST: F. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

X DER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
6	372.3	380.5	6.7	82	40	500			2933	370-380	QMP	Same As Above w/No Unaltered Zones. @378-379 Vuggy, Very Porous Rock	Pyrite-Tr-1%
7	380.5	389.2	7.9	91	75	500			2934	380-390	QMP	Same As Above w/Majority of Box Consisting of Unaltered QMP, Some CaCO3 Fracture Filling	Pyrite-Tr
8	[illegible]	[illegible]	7.2	87	75	750			2935	390-400	QMP	Same As Above w/Less Altered Zones Frac. Surf. or On Unalt. Rock Fairly Heavily Alt.	Pyrite-Tr
9	397.5	408.1	8.0	75	125	750			2936	400-410	QMP	Same As Above w/No Frac. Surface Alteration	Pyrite-Tr
0	408.1	417	7.2	81	300	0.205% 2000			2937	410-420	QMP	Same As Above w/SiO2-2, K-Feld-2-Loc 4, Argillization-2-Loc 4 Rock Generally Dk. Gray.	Pyrite-Tr-<1%
1	417	426	7.6	85	75	1500			2938	420-430	QMP	Same As Above w/1 to 2' of Box Fairly Heavily Weathered Mtl., Hvy. Argillization Along Frac. Surfaces	Pyrite-Tr
2	426	436	8.2	82	150	1500			2939	430-440	QMP	Same As Above w/50% of Box Med-Hvy. Altered, Some Magnetite With Pyrite	Pyrite-Tr-Loc 3-5? Chal-Tr @431.5 & 436 & 434
3	436	445.1	7.6	84	125	500			2940	440-450	QMP	Same As Above w/Less Alt. Zones	Pyrite-Tr-Loc 5? Chal-Tr @441

Hole 0077
Sheet 4 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: OX #5

STARTED 11/23/64
COMPLETED
GEOLOGIST: E. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

OX MBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
4	445.1	455.2	9.4	93	60	250			2941	450-460	QMP	Same As Preceding Box w/Only Minor Frac Surface Alt., Tr Magnetite, Some Gypsum Frac Filling.	Pyrite-Tr
5	455.2	462.1	6.5	94							QMP	Same As Above	Pyrite-Tr
6	462.1	471.6	8.4	89	75	1000			2942	460-470	QMP	Same As Above w/Magnetite Increasing With 2-3% Locally, Still Sparse.	Pyrite-Tr-Loc 2% Chal-Tr @ 468
7	471.6	[illegible]	8.2	91	75	1300			2943	470-480	QMP	Same As Above, w/Tr Magnetite & Specular Hematite	Pyrite-Tr Chal-Tr @ 472.4 & 474.0
8	480.6	489.0	7.3	87	220	750			2944	480-490	QMP	Same As Above w/An Increase In Magnetite, Some Spec. Hematite Present.	Pyrite-Tr-<1% Chal-Tr @ 481.6
49	489.0	497.5	7.5	88	75	500			2945	490-500	QMP	Same As Above w/No Apparent Magnetite	Pyrite-Tr Chal-Tr @ 493 494 & 495.5
50	497.5	506.8	7.9	85	150	1300			2946	500-510	QMP	Same As Above w/Some Frac. Surfaces Slickensided, Alteration Confined To Some Frac Surfaces	Pyrite-Tr
51	506.8	517	9.4	92	150	1300			2941	510-520	QMP	Same As Above w/Tr Spec. Hematite	Pyrite-Tr Chal-Tr @ 508

Note CG #7
Sheet 5 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Oro Grande
PROPERTY: OX #5

STARTED 11/23/64
COMPLETED
GEOLOGIST: E. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
52	517	525.5	7.6	89	150	1500			2948	520-530	QMP	Same As Preceding Box w/Some Highly Altered & Decomposed Zones, Some Clay In These Zones, Tr-Magnetite	Pyrite-Tr-Loc 3%
53	525.5	535	8.1	85	150	1300			2949	530-540	QMP	Same As Preceding Box w/No Highly Weathered Or Decomposed Zones, Tr Magnetite & Spec Hematite	Pyrite-Tr
54	535	[illegible]	[illegible]	95							QMP	Same As Above w/Tr Magnetite, No Hematite	Pyrite-Tr
55	545.1	552.4	7.3	95	150	0.175% 1600			2950	540-550	QMP	Same As Above w/Tr Magnetite	Pyrite-Tr-Loc 1%
56	552.4	561.7	9.6	96	150	1300			2951	550-560	QMP	Same As Above w/Tr Magnetite	Pyrite-Tr
57	561.7	571	9.0	97	300	0.18% 2000			2952	560-570	QMP	Same As Above w/Tr Magnetite	Pyrite-Tr-Loc 1% Chalcocite(?) Tr @ 562
58	571	580	8.8	98	150	1300			2953	570-580	QMP	Same As Above	Pyrite-Tr-Loc 1% Chal. Tr @ 571.5
59	580	589	9.6	96	220	1300			2954	580-590	QMP	Same As Above	Pyrite-Tr
60	589	599	8.5	85	75	1300			2955	590-600	QMP	Same As Above w/Some $CaCO_3$ Tr Filling	Pyrite-Tr

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Oro Grande
PROPERTY: OX #5

STARTED 11/23/64
COMPLETED
GEOLOGIST: E. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

OX MBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
1	599	607.2		98	75	1000			2956	600-610	QMP	Same As Preceding Box w/Tr Magnetite	Pyrite - < Tr
2	607.2	616.3		100	150	1000			2957	610-620	QMP	Same As Above	Pyrite - Tr
3	616.3	626		75	150	1500			2958	620-630	QMP	Same As Above w/Small Of Almost Complete Silicification 616.3-617.	Pyrite - Tr
4	626	637		80	300	0.155% 1600			2959	630-640	QMP	Same As Above w/No Hvy Silicification SiO_2 2, Argillization - 2, Tr Magnetite	Pyrite - Tr - Loc 1% [illegible]
5	637	646.5		95	220	1300			2960	640-650	QMP	Same As Above w/Tr Magnetite	Pyrite - Tr - Loc 3% Chal - Tr @ 646
6	646.5	656		90	120	1000			2961	650-660	QMP	Same As Above w/Tr Magnetite	Pyrite - < Tr
7	656	665.2		95	120	1000			2962	660-670	QMP	Same As Above w/Zone of Hvy. Alteration From 662-665.2, Argillization 2 - Loc 4 Small Portions Of Altered Zones Very Friable	Pyrite - Tr
8	665.2	674.4		93							QMP	Same As Above Hvy. Alteration Zone, Some Vuggy Rock @ 672 For About 6", Silicification Locally 4	Pyrite - < Tr
9	674.4	684		87	40	360			2963	670-680	QMP	Same As Above w/2' Zone Of Fresh Unalt. QMP	Pyrite - Tr
70	684	694		87	220	1300			2964	680-690	QMP	Same As Above w/6" Clay Zone @ 690, 30% Fresh QMP T.S. # 2182 699'	Pyrite - < Tr
71	694	702.5		96	60	1000			2965	690-700	QMP	Same As Above w/Alternating Zones of Highly Alt. & Fresh QMP Horizontal Slickensides On Some	Pyrite - Tr Porph. Dacite

Hole OG #7
Sheet 7 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Oro Grande
PROPERTY: OX #5

STARTED 11/23/64
COMPLETED
GEOLOGIST: F. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond - Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

X BER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
2	702.5	710.9		85	125	500			2966	700-710	QMP	Highly Altered 702.5-705, Mod. Altd. 705-710.9, Argillization 3-Loc 4, Entire Run	Reduced @ 711' - BX Pyrite - Tr
3	710.9	719.5		98	60	500			2967	710-720	QMP	SiO_2 - 2, Argillization 1-2, & Fracs. 60° Filled w/ Gypsum & Some Pyrite, Tr Magnetite	Pyrite - 1-2%
1	719.5	726		96	125	0.19% 2000			2968	720-730	QMP	Same As Above w/ Argillization Loc 3, Tr Magnetite	Pyrite - Tr - 2% Chal - Tr @ 719.5
5	726	734.9		95							QMP	Same As Above w/ Tr - Magnetite	Pyrite - 1-3%
6	734.9	743.9		97	225	1300			2969	730-740	QMP	Same As Above w/ Inclusion of A Dk. Basic Rock @ 736, No Magnetite	Pyrite - 1%
7	743.9	752.2		98	75	1000			2970	740-750	QMP	Same As Above w/ Tr Magnetite	Pyrite - 1-2%
8	752.2	761.3		98	125	1000			2971	750-760	QMP	Same As Above w/ Some Sm. Patches of Epidote, Tr Magnetite	Pyrite - Tr - 1%
9	761.3	771.2		97	75	1000			2972	760-770	QMP	Same As Above w/ A Patch (Inclusion) of Basic Rock @ 765, Tr Magnetite w/ Loc. 5% Magnetite @ 770	Pyrite - Tr
0	771.2	780.3		95	75	1000			2973	770-780	QMP	Same As Above w/ Some Epidote, Some Patches Pure SiO_2, Tr - Magnetite	Pyrite - Tr - 1%
1	780.3	789.9		93	175	1400			2974	780-790	QMP	Same As Above	Pyrite - 1%

HOLE OG-7 SHEET 3 OF

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Oro Grande
PROPERTY: OX #5

STARTED 11/23/64
COMPLETED
GEOLOGIST: F. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond - Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	ASSAYS Cu					ROCK TYPE	DESCRIPTION	REMARKS
82	789.9	798.1		97	175	1000			2975	790-800	QMP	Same As Preceding Box w/No SiO2 Patches	Pyrite-Tr
83	798.1	807.9		100	150	0.20% 2000			2976	800-810	QMP	Same As Above w/Some Patches SiO2	Pyrite-Tr-Loc 1%
84	807.9	816.7		100	40	0.16% 1700			2977	810-820	QMP	Same As Above	Pyrite-Tr-1%
85	816.7	825.3		98	40	1000			2978	820-830	QMP	Same As Above w/Argillization Loc 3	Pyrite-Tr-Loc 1%
86	825.3	834.9		100							QMP	Same As Above w/SiO2 Loc 3. Tr Magnetite	Pyrite-Tr
87	834.9	843.7		100	150	750			2979	830-840	QMP	Same As Above w/Tr Magnetite	Pyrite-Tr
88	843.7	852.4		97	150	750			2980	840-850	QMP	Same As Above w/A Badly Broken Zone From 852.4-846., No High Argillization, SiO2-2	Pyrite-Tr
89	852.4	861.3		97	200	750			2981	850-860	QMP	Same As Above	Pyrite-1-2%
90	861.3	870.2		97	150	1000			2982	860-870	QMP	Same As Above	Pyrite-Tr-Loc 2%
91	870.2	879.1		98	150	750			2983	870-880	QMP	Same As Above	Pyrite-Tr-Loc 2%
92	879.1	887.9		100	15	100			2984	880-890	QMP	Same As Above w/A Section From 895-887.9 Containing Mafics Up To 6%	Pyrite-Tr
93	887.9	897		97	40	360			2985	890-900	QMP	Same As Above w/A Coarser Texture, K-Feld Flooding-2-3 (Loc)	Pyrite-Tr (Loc)
94	897	906.1		99	75	360			2986	900-910	QMP	Same As Above w/Strong Feld Alt. On Open Fracs Narrow Zones Fine Grained Rock & Mafic Barren	Pyrite-Essentially

Hole OG #7
Sheet 9 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Oro Grande
PROPERTY: OX #5

STARTED 11/23/64
COMPLETED
GEOLOGIST: F. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
95	906	915.5		98	5	360			2987	910-920	QMP	Same As Preceding Box w/No: Coarse Textured Rock, Frac. Surface Alteration & Strong K-Feld. Flooding	Pyrite-Tr
96	915.5	924.7		97							QMP	Same As Above w/A Zone From 518.5-521.5 Coarse Grained QMP, Remainder Finer Grained, Some Epidote The Color Of This Coarse Grained Rock Is Almost White While The Fine Grained Rock Is A Med. Gray.	Pyrite-Tr-1% Dies
97	924.7	934.2		97	75	250			2988	920-930	QMP	Same As Above w/No Coarse Grained Zones	Pyrite-Tr
98	934.2	943.5		98	75	250			2989	930-940	QMP	Same As Above w/Argillization 2-Loc 3 Tr-Spec. Hematite(?) Within Gypsum Veins	Pyrite-Tr
99	943.5	952.3		99	150	1000			2990	940-950	QMP	Same As Above w/Tr Magnetite, Some Epidote	Pyrite-Tr-Loc 1%
100	952.3	961		99	75	500			2991	950-960	QMP	Same As Above	Pyrite-Tr-1%
101	961	969.8		100	75	750			2992	960-970	QMP	Same As Above w/Tr-Magnetite	Pyrite-Tr-Loc 1%
102	969.8	978.8		90	125	750			2993	970-980	QMP	Same As Above w/Tr Magnetite, Argillization 1-2	Pyrite-Tr-Loc 1%
103	978.8	987.8		95	125	1400			2994	980-990	QMP	Same As Above w/No Magnetite or Epidote	Pyrite-Tr

OG #1
Sheet 10 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Oro Grande
PROPERTY: OX #5

STARTED 11/23/64
COMPLETED 12/18/64
GEOLOGIST: F. Mack
TOTAL DEPTH: 1003
TYPE DRILL: Diamond - Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
04	987.8	997		92	125	1000		SEE	2995 SPEC.	990-1000 RESULTS	QMP	Same As Preceding Box w/Some Epidote	Pyrite - Essentially Barren
05	997	1003		100	125	500			2996	1000-1003	QMP	Same As Above	Pyrite - Tr
												2/11/65 CORE DESTROYED	

OCT 7

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

OG #11

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: Nettie Lode

STARTED 12/20/64
COMPLETED
GEOLOGIST: F. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
9	101.5	111		96	10	750			1808	100-110	Tactite	Hvy. Garnetized w/Some Silicification, Tr Spec. Hematite. Tactite-Med-Brown	Pyrite-2-3%
10	111	120.5		100	5	750			1809	110-120	Tactite	Same As Above w/Some Calcareous Zones. Contains A Little More Siliceous Zones	Pyrite-3%
11	120.5	129.3		98	5	1000			1810	120-130	Tactite	Same As Above w/Garnetization Being Only Very Slight. Tactite w/No Garnetization Is Slightly Calcareous	Pyrite-5%
12	129.3	139.3		96	20	360			1811	130-140	Tactite	Same As Above w/A Zone Of QDP 133-135. Some Patches Of Epidote	Pyrite-1-2%
13	139.3	149		94	20	360			1812	140-150	Tactite	Same As Above w/Tr Magnetite, Some Zones $CaCO_3$. Very Light Gray	Pyrite-3%
14	149	157.1		99	5	1000			1813	150-160	Tactite	Same As Above w/Patches Of Epidote. No Magnetite	Pyrite-1%-Loc 10%
15	157.1	166.5		95	5	500			1814	160-170	Tactite	Same As Above w/No Epidote, No Garnetization Mostly Silicified	Pyrite-5% Chal-Tr @ 159.5, 162, & 163
16	166.5	175.3		91	15	750			1815	170-180	Tactite	Same As Above w/Zone 173.3-175.3 QDP Some Patches Magnetite Within Tactite	Pyrite-Tr-1%

HOLE OG #11 SHEET 2

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

OG #11

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Oro Grande
PROPERTY: Nettie Lode

STARTED 12/20/64
COMPLETED
GEOLOGIST: F. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION: 4638.3' (Collar Elev.)

356' Bx Casing
30' Nx Casing In Hole

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
1	25	39.3		65	10	450			1801	30-40	QMP	Mixed Oxidized & Sulphide Zones Argillization 2 (Fresh QMP) - 4 (Badly Broken & Weathered QMP). Breakage 3-4. Some Gypsum In Fracs. SiO_2 - 1-2	Pyrite - 1-2%
2	39.3	49.0		80	15	750			1802	40-50	QMP & Tactite	QMP - Same As Above w/ Mixed Oxide & Sulphide Zones. Tactite Is Same As QMP. QMP 39.3 - 37.3 Tactite 37.3 - 49 Tr. Magnetite	Pyrite - Tr - Loc 1-2%
3	49	58.5		91	5	1000			1803	50-60	Tactite	Limonite Stained 49-52. Magnetite ±5% Some SiO_2 Veinlets.	Pyrite - Tr - Loc 35% Chal - Tr @ 55.5, 53.0
4	58.5	62		98							Tactite & Magnetite	Tactite Same As Above w/ Limonite Restricted To Open Fracs. Magnetite Zone (90% Magnetite) 59-62'	Pyrite - 5% - Loc 100% In Very Narrow Reef Zones. Bornite - Tr @ 60.5
5	62	72		95	5	1000			1804	60-70	Tactite & Magnetite	Mixed Tactite & Magnetite (45% Magnetite)	Pyrite - 5%
6	72	82		96	5	750			1805	70-80	Magnetite	w/ A Few Patches Of Tactite (80-85% Magnetite)	Pyrite - 5 - Loc 10%
7	82	92		97	5	1400			1806	80-90	Magnetite	Same As Above w/ A Very Narrow Zone Of Limonite @ 91', (60% Magnetite)	Pyrite - 5% - 10%
8	92	101.5		98	5	1400			1807	90-100	Magnetite & Tactite	Magnetite From 92-93.5. Tactite Loc Heavily Garnetized Very Lt. Gray To Med Brown Tr. Loc [illegible]	Pyrite - 5%

Hole OG #11 Sheet 1 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: Nassau Lode

STARTED 12/20/64
COMPLETED 1/19/65
GEOLOGIST: E. Mack
TOTAL DEPTH: 954
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
3	910.5	919.5		95	60	20			#1889	910-920	QMP	Same As Preceding Bar w/Some Areas of Gouge, Slickensided Frac. Surfaces From 914.5-916, Argillization-3-4	Pyrite-Tr
4	919.5	928.5		98	10	20			#1890	920-930	QMP	Same As Above w/About 35% of Bar Calcite Seams, Argillization-4, Gouge 926.5-928.5, Calcite Xtl Development On Open Fracs	Pyrite-Tr-1%
5	928.5	936.5		96	10	20			#1891	930-940	Tactite	QMP As Above 928.5-930, Tactite Is Garnetized w/Zones of Calcite, A Little Jasper Development, Tr Spec. Hematite, Some High Calcareous Zones In Both QMP & Tactite	Pyrite-1%
6	936.5	945.5		100	15	20			#1892	940-950	Tactite	Same As Above w/No Jasper, Mostly Garnetized.	Pyrite-Tr
7	945.5	954		92	10	20			#1893	950-954	Mixed QMP & Tactite	Tactite Same As Above, QMP Argillization-3, SiO_2-1, Tr Spec Hematite In Tactite	Pyrite-Barren
												2/11/65 Core Given To Howard Arnold	

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Oscarando
PROPERTY: Nettie Lode

STARTED 12/20/64
COMPLETED 1/19/65
GEOLOGIST: E. Mack
TOTAL DEPTH: 954
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
94	833	841.5		100	15	1200			#1881	830-840	Mixed QMP & Tactite	Same As Preceding Box w/ Some Highly Altered Sections, Some Calcite	Pyrite-Tr-2%
95	841.5	851		98	60	600			#1882	840-850	Mixed QMP & Tactite	Same As Above w/ No Altered Zones	Pyrite-2%
96	851	858		97	20	600			#1883	850-860	Mixed QMP & Tactite	Same As Above w/ Some Calcite Veining, Some Calcite Veining	Pyrite-2-3%
[illegible]	[illegible]	[illegible]		97	10	300			#1884	860-870	Tactite	Same As Above w/ Less Mixed QMP, Some Heavy Calcite Sections	Pyrite-1%
98	867.2	876.2		95	15	20			#1885	870-880	Tactite	Same As Above w/ 20-25% Calcite Sections, 30° Fractures, Some Spec. Hematite, A Very Little Mixed QMP	Pyrite-Tr-1%
99	876.2	885.1		95	10	20			#1886	880-890	Tactite	Same As Above w/ Very Few Calcite Zones, Only Sm Patches, Breakage, Some Specular Hematite, Calcareous Groundmass	Pyrite-Tr-1%
100	885.1	894		95							QMP	Highly Calcareous Tactite 885.1-886.1, QMP. Argillization 3-4. Sol-1, Breakage 1-2, Where Some Slickensided Trace Surfaces	Pyrite-Tr-1%
101	894	902		100	60	20			#1887	890-900	QMP	Same As Above w/ Breakage 1-[illegible] Calcite [illegible]	[illegible]
102	902	910.5		100	75	20			#1888	900-910	QMP	Same As Above w/ Calcite [illegible] & Breccia 902-910.5, Wed [illegible] Not [illegible]	

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Oscuro
PROPERTY: Notric Lode

STARTED 12/20/64
COMPLETED
GEOLOGIST: E. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

X DER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
5	761.5	769.8		100	75	150			#1874	760-770	QMP	Same As Preceding Box w/10% Mixed Tactite Zones, Fe Mags 5%	Pyrite - Tr
6	769.8	777.7		98	40	600			#1875	770-780	QMP & Tactite	Same As Above w/50% Tactite & 50% QMP Some Spec. Hematite In Tactite, Tactite Mostly Granetized	Pyrite - 5% (Tactite)
7	777.7	794		95							Tactite	Same As Above w/Earthy Peridot @ 780	Pyrite - 10%
8	78[illegible]	79[illegible]		13	5	60			#1876	780-790	Tactite	Same As Above w/Some Calcite & Spec. Hematite, Heavily Granetized	Pyrite - 5-10%
9	79[illegible]	800.6		99	30	120			#1877	790-800	Tactite	Mostly Pyrite w/Some Calcite & Spec. Hematite	Pyrite - 30-50%
0	800.6	808.8		98	30	600			#1878	800-810	Tactite	Mostly Granetized w/Some Siliceous & Spec. Hematite	Pyrite - 20-25%
1	808.8	817		96	15	150			#1879	810-820	Tactite	Same As Above w/Some Earthy Peridot & Spec. Hematite, Some Calcite	Pyrite - 5-10%
2	817	826		94	5	1200			#1880	810-830	Tactite	Same As Above w/No Spec. Hematite	Pyrite - 1-2%
3	826	833		100							Tactite	Same As Above w/Less Granetized, Some Shale Zone, No Silicates	Pyrite - [illegible]

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: Nettie Lode

STARTED 12/20/64
COMPLETED
GEOLOGIST: F. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
76	690.7	697.5		94	60	20			#1867	690-700	QMP	Same As Preceding Box w/Breakage 2-3, Fracs. 40°-80°, Some Surfaces Slickensided, SiO_2-1, Some Areas Slightly Calcareous	Pyrite-Tr-1%
77	617.5	704.5		97							QMP	Same As Above w/Breakage 1-Loc 4 Argillization-2-Loc 4, SiO_2-2 Some Slickensided Surfaces	Pyrite-2-3%
78	704.5	713		98	120	20			#1868	700-710	QMP	Same As Above w/Breakage 1, SiO_2 Loc 3 Some Surfaces (Frac) Talcose	Pyrite-Tr
79	713	720.5		97	30	20			#1869	710-720	QMP	Same As Above w/Lateral Slickensided Frac. Surfaces, SiO_2-1, Argillization 2-3	Pyrite-<Tr
80	720.5	729		95	40	20			#1870	720-730	QMP	Same As Above w/Zone Of Mod. Hvy Mafics 427.5-429	Pyrite-Tr
81	729	736.6		97	40	20			#1871	730-740	QMP	Same As Above w/Argillization-2 SiO_2-1, No Mafics	Pyrite-Tr
82	736.6	744		96							QMP	Same As Above w/A Few Zones Of Mafics	Pyrite-Tr
83	744	753		95	200	40			#1872	740-750	Tactite	744-746 QMP, Same As Above. Siliceous & Garnetized, Some Spec. Hematite & Calcite	Pyrite-4%
84	753	761.5		95	75	20			#1873	750-760	QMP	w/Some (5%) Mixed Tactite Zones, QMP Med. Dk Gray, Argillization 2, SiO_2-1	Pyrite-Tr-1%

Hole OG#11
Sheet 11 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: Nettie Lode

STARTED 12/20/64
COMPLETED
GEOLOGIST: F. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
70	640	648.3		98	30	0.195% 1800			#1862	640-650	Tactite	Same As Preceding Box w/Patches of Epidote, Some Hvy. Siliceous Zones	Pyrite-5% Chal-Tr @ 645.5, 646.1,
71	648.3	656.6		97	5	0.253% 1800			#1863	650-660	Tactite	Same As Above w/Calcite Vugs, No Hvy Siliceous Zones	Pyrite-5-Loc 407 [illegible] Chal-Tr @ 650 651 [illegible] 652.
72	[illegible]	665.1		98	5	0.815% 5000			#1864	660-670	Tactite	Same As Above w/Spec. Hematite	Pyrite-10% Chal-Tr @ 658, 661 [illegible] 662, 663.
73	665.1	673.8		95							Tactite	Same As Above	Pyrite-5-10% Chal-Tr 666-668
74	673.8	682		98	20	600			#1865	670-680	Tactite & QMP	Tactite 673.8-675.4 - Same As Above QMP 675.4-682 White w/Small Patches of Lt. Gray-Argillization-1, SiO_2-1 Breakage-1, Mod. Fracturing, Some Sericite Development	Pyrite-3% Tactite 1% - QMP
75	682	690.2		97	20	20			#1866	680-690	QMP	Same As Above w/SiO_2 Loc 2 Argillization-Loc 2-3, Some Frac. Surfaces Talcose	Pyrite-Tr-Loc 1%

Hole
Sheet 10 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Oregrande
PROPERTY: Nettie Lode

STARTED 12/20/64
COMPLETED
GEOLOGIST: F. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

OX MBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
61	566	575		100							Tactite	Mixed Garnetized & Silicified Zones, The Siliceous Zone Is Moderately Altered, Siliceous Zone Is Moderately Fractured	Pyrite-Tr-1%
62	575	584.5		94	40	800			#1855	570-580	Tactite	Mostly Garnetized w/Some Siliceous Zones, Vugs w/Quartz Xtls & Spec. Hematite, Patches Of Calcite	Pyrite-10% Chal-Tr @ 580-584.5
63	584.5	593		97	10	0.16% 1500			#1856	580-590	Tactite	Same As Above w/Patches Of Epidote,	Pyrite-1% Chal-Tr @ 586.5
64	593	601.5		98	75	600			#1857	590-600	Tactite	Same As Above w/Mod. Fracturing, Chal Diss. & Within Veinlets Of Garnet	Pyrite-4% Chal-Tr 495.5-601
65	601.5	610.2		92	5	600			#1858	600-610	Tactite	Same As Above w/Some Epidote, Some Spec. Hematite, Breakage-2, Some Calcite	Pyrite-3% Chal-Tr @ 603, 610.2
66	610.2	618.6		94	5	600			#1859	610-620	Tactite	Same As Above w/4-5% Calcite, Both In Veins & Diss. Spec. Hematite, Vugs Filled w/Calcite Xtls, & SiO_2 Xtls,	Pyrite-2-3% Chal-Tr @ 610.4, 615.5, 618.5
67	618.6	626.7		100	5	900			#1860	620-630	Tactite	Same As Above w/Very Little Calcite, No Vugs,	Pyrite-5% Chal-Tr @ 627 to 623.5
68	626.7	634.6		96							Tactite	Same As Above w/More Calcite, Some Xtls. In Vugs, In Some Zones Texture Is Mottled	Pyrite-1% Chal-Tr @ 627
69	634.6	640		95	5	150			#1861	630-640	Tactite	Same As Above w/Tr Amts Calcite, No Vugs,	Pyrite-Tr-1%

Hole CG #11
Sheet 9 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: Nettie Lode

STARTED 12/20/64
COMPLETED
GEOLOGIST: F. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
54	507	518.5		100	20	60			#1849	510-520	Tactite	Same As Preceding Box w/Hvy Fe Staining From 507-510, This Zone Slickensided Along Frac Surfaces Some Spec. Hematite	Pyrite-5-Loc 10%
55	518.5	524		100							Tactite	Same As Above w/Rock Mostly Garnetized	Pyrite-1%
56	[illegible]	[illegible]		86	40	40			#1850	520-530	Tactite	Same As Above Some Epidote & Spec Hematite	Pyrite-5%
57	532.5	[illegible]		97	5	450			#1851	530-540	Tactite	Same As Above w/Tr Magnetite, Very Highly Altered Zone From 439-440.5 w/Some Lateral Slickensided Frac Surfaces, Some Spec. Hematite	Pyrite-10-15%
58	540.5	548.9		97	20	20			#1852	540-550	Felsic Igneous	Almost Completely SiO_2 Flooded, Fairly Heavily Fractured, Pyrite Within Fracs.	Pyrite-Tr-Loc 1%
59	548.9	557		97	20	20			#1853	550-560	Felsic Igneous & Tactite	Same As Above w/Fracs Coated With Calcite Xtls, Rock Types Mixed, Tactite Mostly Garnetized	Pyrite-Tr-1%
60	557	566		93	77(?)	20			#1854	560-570	Tactite	Mostly Siliceous, No Garnetization, Moderately Fractured, Large Patches of Calcite Gouge Clay (2") @ 564'	Pyrite-<Tr

Hole OG #11
Sheet 8 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: Nevada Lode

STARTED 12/20/64
COMPLETED
GEOLOGIST: F. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

ER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
3	454.5	464		95	20	20			#1843	450-460	Tactite	Very Highly Decomposed Mostly Dk Red Fe Stained, 1st 2' Very Porous Some Magnetite & Spec Hematite, Slickensided Faces (Movement Normal To Inclination of Hole) Talc On Some Face Surfaces, 4" Red Clay Zone @ 461'	Pyrite - 2%
7	464	473		98	20	20			#1844	460-470	Tactite	More Highly Decomposed & Fe Stained Than Preceding Box, No Magnetite Some Spec Hematite, Some Patches of Calcite More Slickensided Than Above Box	Pyrite - 3-4%
0	473	483		97	20	20			#1845	470-480	Tactite	Same As Above w/ Moderately Calcareous Groundmass, Less Slickensided	Pyrite - 3%
1	483.5	488		94	10	20			#1846	480-490	Tactite	Garnetized & Silicified w/ Spec. Hematite Some Calcite Veins	Pyrite - 4%
2	488	498		97	10	20			#1847	490-500	Tactite	Same As Above w/ Some Epidote	Pyrite - 10%
3	498	507		94	10	450			#1848	500-510	Tactite	Same As Above w/ More Of Box Not Heavily Garnetized, Heavily Fe Stained Zone From 506-507. Faces From 505-507 Slickensided Rock From 505-506 Appears To Be Bedded	Pyrite - 1-2%

Hole OG #11
Sheet 7 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: Nettie Lode

STARTED 12/20/64
COMPLETED
GEOLOGIST: F. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
0	383.8	392.3		90	5	900			#1836	380-390	Tactite	Same As Preceding Box w/Tr Spec Hematite, Some Calcite, Mostly Garnetized No Decomposed Zones, Slightly Calcareous	Pyrite-5% Chal-Tr From 385.5 To 388.7, & 390
1	392.3	400.5		97	5	0.265% 2000			#1837	390-400	Tactite	Same As Above, w/Epidote & Spec. Hematite Some Patches Of Calcite, Tr Magnetite	Pyrite-1-2% Chal-Tr @ 392.8 394, 395-398
2	[illegible]	[illegible]		99	5	0.185% 2000			#1838	400-410	Tactite	Same As Above w/Some Magnetite	Pyrite-3% Chal-400.5-402(Tr) 402.5-404(Tr)
3	409.5	418.5		98	5	0.215% 2000			#1839	410-420	Magnetite	w/Tactite & Pyrite, (Magnetite 45%)	Pyrite-5-10% Chal-Tr @ 410
4	418.5	427.5		97	5	0.10% 1500			#1840	420-430	Tactite	w/Some Magnetite, Vugs w/Calcite Xtls, Epidote	Pyrite-5% Chal-Tr @ 419.5 421.5, 425.5
5	427.5	437.3		94	10	800			#1841	430-440	Tactite	Same As Above w/Some Magnetite, Some Patches Of Calcite & Epidote	Pyrite-5-10% Chal-432.5(Tr) & 436
6	437.3	445.3		97	10	300			#1842	440-450	Tactite	Same As Above w/Tr Spec Hematite, Some Magnetite Some Siliceous Patches, Some Epidote	Pyrite-2-3% Chal-Tr @ 439
7	445.3	454.5		92							Tactite	Same As Above w/No Magnetite, Some Spec Hematite Some Calcite Xtls Along Fracs, @ 454 A Zone Of Highly Decomposed Tactite Begins	Pyrite-1-2%

Hole OG #11
Sheet 6 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Oregrande
PROPERTY: Nettie Lode

STARTED 12/20/64
COMPLETED
GEOLOGIST: F. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

BOX NUMBER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
2	312.5	320.9		97	10	75			#1829	310-320	Tactite	Same As Preceding Box w/Very Slightly Calcareous Zones, Some Talc Along Frac Surfaces	Pyrite-Tr-1%
3	320.9	329		95	20	60			#1830	320-330	Tactite	Same As Above w/QMP From 326.6-327.5	Pyrite-Tr-1% Chal-Tr @ 325'
4	329	338		94	30	130			#1831	330-340	Tactite	Same As Above w/Some Calcite Frac Filling, Some Spec Hematite, Patches of Epidote	Pyrite-1%-Loc 307. Chal-Tr @ 338
5	338	348		95	10	200			#1832	340-350	Tactite	Same As Above	Pyrite-5%
6	348	356		80	5	1400			#1833	350-360	Tactite	Same As Above w/More Of Rock Garnetized Tr Spec Hematite.	Pyrite-2% Reduced To Bxo 356'
7	356	365		83	40	1400			#1834	360-370	Tactite	Mostly Garnetized w/A Zone Of Magnetite (Some Tactite Mixed In) From 357-361, Some Spec Hematite Chal Mostly Diss Within Tactite, Very Likely Tr Magnetite	Pyrite-5% Chal-Tr @ 357, 361, 362, 363
8	365	375.5		99							Tactite	Silicified & Garnetized, Mod Calcareous, Talc On Some Frac Surfaces, Tr Spec Hematite	Pyrite-Tr
9	375.5	384.5		94	40	500			#1835	370-380	Tactite	Same As Above w/Some Epidote, Tr Spec Hematite, Very Highly Alt'd & Decomposed Zone From 375.5-379.5 Lost w/Core, Tr	Pyrite-Tr-1% Chal-Tr @ 381.5

Hole 0-8
Sheet 5 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: Nerve Lode

STARTED 12/20/64
COMPLETED
GEOLOGIST: F. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

X BER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
5	248.1	258		97	-5	200			1823	250-260	Tactite	Magnetite From 248.1-249.6. Remainder Of Box Mixed Tactite & Magnetite. Tactite Is A Soft White Talcose Rock	Pyrite-2%
6	258	267		95	-5	130			1824	260-270	Magnetite	Tactite From 258-260.5 Same As Above w/ SiO_2 Within Magnetite	Pyrite-Tr-10%
7	267	276.5		95	10	200			1825	270-280	Magnetite	Same As Above w/ 20% Tactite Within Magnetite. Disseminated $CaCO_3$ Within Magnetite	Pyrite-10-15%
8	276.5	284.5		95							Tactite	Silicified & Garnetized w/ Patches Of $CaCO_3$, Some Magnetite	Pyrite-1%-Loc 20% @ 281.5 Chal-Tr @ 281.5
9	284.5	294		93	5	1500			1826	280-290	Tactite	Same As Above w/ More Garnetization Than Silicification, Some Magnetite	Pyrite-5% Chal-Tr @ 289-292 Disseminated
0	294	302		94	5	1500			1827	290-300	Tactite	Same As Above w/ Some Calcareous Zones Within Rock Containing No Garnetization, Some Spec. Hematite	Pyrite-5% Loc 30% Chal-Tr @ 301.5
1	302	312.5		91	5	100			1828	300-310	Tactite	Same As Above w/ No Magnetite, Zone Of Dk Red Oxidation From 305-309.5 Patches Of Epidote, Some Spec. Hematite	Pyrite-Tr-Loc 10

Hole OC-11
Sheet 4 of

THE SUPERIOR OIL COMPANY
MINERALS DIVISION

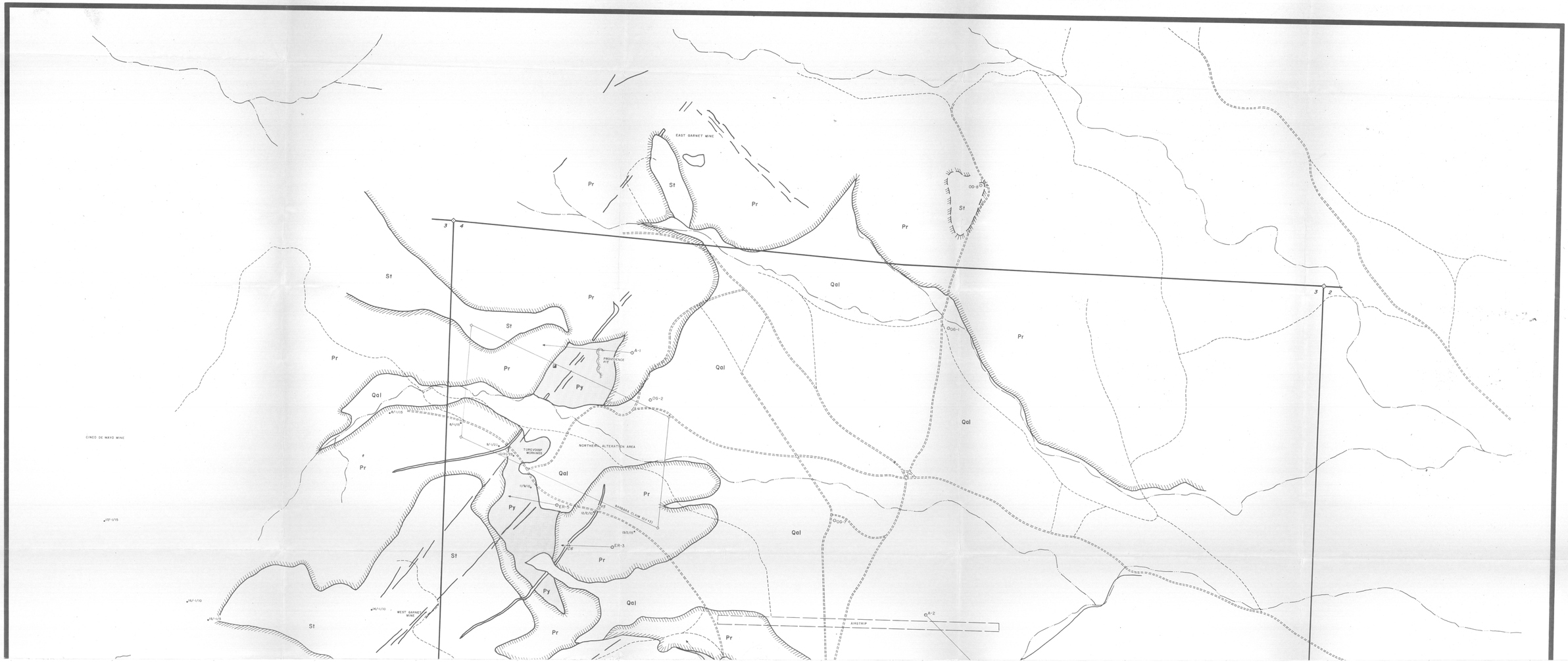
STATE: New Mexico
COUNTY: Otero
DISTRICT: Silver Hill
PROJECT: Orogrande
PROPERTY: Nettie Lode

STARTED 12/20/64
COMPLETED
GEOLOGIST: F. Mack
TOTAL DEPTH:
TYPE DRILL: Diamond-Wireline
DRILL CONTRACTOR: Longyear

BEARING
INCLINATION Vertical
COORDINATES:
ELEVATION:

X BER	FOOTAGE		SAMPLE REC.	% REC.	ASSAYS Mo	Cu					ROCK TYPE	DESCRIPTION	REMARKS
7	175.3	184		94							Tactite	Same As Preceding Box w/QDP From 175.3-177.5. Tactite Contains Some Zones Weathered To Clay. Scattered Patches Epidote	Pyrite-2%-Loc 90% (2") @ 178'
8	184	193.5		100	-5	1000			1816	180-190	Tactite	Same As Preceding Box w/Tr. Magnetite Some Epidote	Pyrite-Tr-Loc 10-15%
9	193.5	203.1		93	-5	30			1817	190-200	Tactite	Same As Above w/5% Of Box Magnetite Some $CaCO_3$ Frac. Filling	Pyrite-1-Loc 2%
0	203.1	213		90	-5	10			1818	200-210	Tactite	Same As Above w/Last 2' of Box Dk. Gray & Black Mottled Rock	Pyrite-Tr-Loc 5%
21	213	222.5		96	5	40			1819	210-220	Tactite	Same As Above w/Some Garnetization, No Magnetite, Slightly Calcareous, Some Epidote, Mottled Rock Terminates @ 217	Pyrite-Tr-1%
22	222.5	230.2		98	5	130			1820	220-230	Tactite	Same As Above w/Tr Spec Hematite Heavily Garnetized & Silicified, Some Magnetite	Pyrite-5% Chal-Tr @ 226, 227.5 229 (Diss)
23	230.2	239		95	5	250			1821	230-240	Magnetite	Magnetite 75% w/Some Tactite @ End of Box (238-239)	Pyrite-6% Chal-Tr @ 231.5
[illegible]	[illegible]	249.1		99	-5	250			1822	240-250	Magnetite	Same As Above w/Very Little Tactite Some $CaCO_3$ Veins	Pyrite-5-10% Chal-Tr @ 246.5

Hole OG #11
Sheet 3 of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CINCO DE MAYO MINE
WEST GARNET MINE
PROVIDENCE PIT
TOREVOISP WORKINGS
NORTHERN ALTERATION AREA
BANBANA CLAIM (CLF 12)
AIRSTRIP
Pr
St
Qal
Py
A-1
A-2
OG-1
OG-2
OG-6
OG-7
ER-3
ER-5
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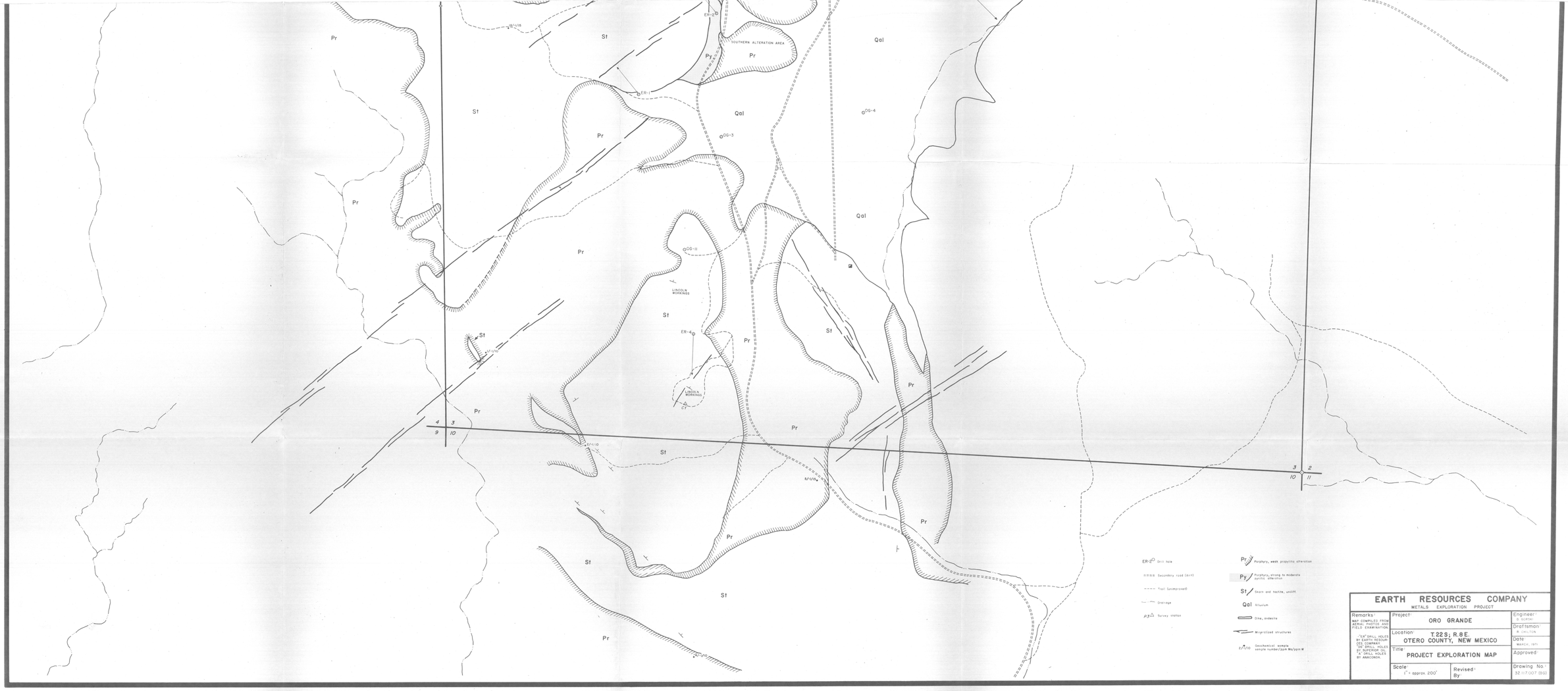

Pr
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Qal
Py
SOUTHERN ALTERATION AREA
ER-1
ER-2
ER-4
OG-3
OG-4
OG-11
LINCOLN WORKINGS
4
3
9
10
2
11
ER-2 Drill hole
Secondary road (dirt)
Trail (unimproved)
Drainage
Survey station
Pr Porphyry, weak propylitic alteration
Py Porphyry, strong to moderate pyritic alteration
St Skarn and tactite, undiff.
Qal Alluvium
Dike, andesite
Mineralized structures
2/4/10 Geochemical sample sample number/ppm Mo/ppm W
EARTH RESOURCES COMPANY
METALS EXPLORATION PROJECT
Remarks: MAP COMPILED FROM AERIAL PHOTOS AND FIELD EXAMINATION.
"EA" DRILL HOLES BY EARTH RESOURCES COMPANY.
"OG" DRILL HOLES BY SUPERIOR OIL.
"A" DRILL HOLES BY ANACONDA.
Project: ORO GRANDE
Location: T.22 S; R.8 E. OTERO COUNTY, NEW MEXICO
Title: PROJECT EXPLORATION MAP
Scale: 1" = approx. 200'
Revised:
By:
Engineer: D. GORSKI
Draftsman: R. CHILTON
Date: MARCH, 1971
Approved:
Drawing No.: 32.117.007 (86)