

Sowega Minerals Incorp.
 J. W. West No. 1
 Calhoun Co., Ga.
 Elev.: Top rotary, 354' (Bar.)

<u>Description:</u>	<u>Depth in Feet:</u>
No Samples	0-400
Galuconitic, silty sand	400-450
Line rock	450-560
Coarse-grained sand containing rare grains of rose quartz and pyrite	560-630
Do.; plus increase in glauconite. Foran- inifera present	630-640
First observed <i>Gumbelina</i> sp.	650-660
<i>Kyph. christneri</i>	1450-1460
<i>Vag. cf. texana</i>	1540-1570
White sand with disseminated glauconite; macro-shells present	2050-2080
Strong increase in coarse-grained sand	2170-2200
Highly micaceous, sandy, brick-red clay plus sand	2630-2670
In dense, dark red-colored, diabase-like rock	5262-5265

Tentative Summary:

<u>Formation:</u>	<u>Depth in Feet:</u>
No Samples	0-400
In possible Wilcox	400-450
In Midway (Clayton)	450-560
In Upper Cretaceous	560-2630
In nonmarine Cretaceous	560-630
In marine Cretaceous	630-2170
In Eutaw (possible equivalent of Tombigbee sand member)	2050-2170
In Tuscaloosa	2170-2200
In Lower Cretaceous (?)	2630-2670
In basement (top not determined in cuttings; see attached description of core)	5262

UNPUBLISHED RECORDS
 SUBJECT TO REVISION

Sowega Minerals:
 # 1 J. W. West
 Calhoun Co.: GGS # 192
 Elev. 349(D.F.): Logged by
 SMH

UNPUBLISHED RECORDS
 SUBJECT TO REVISION

<u>Description:</u>	<u>Depth in Feet:</u>
No Samples -----	0 - 400
Medium to coarse-grained, coarsely & abundantly glauconitic sand plus frequent fragments of gray-colored, micaceous, carbonaceous clay, sandy, glauconitic limestone, and macro-shells -----	400 - 420
<u>Nodosaria sp.</u> -----	400
<u>Quing. plummerae, Nod. latejugata, Rob. midwayensis, Robulus sp., Valv. wilcoxensis, Anom. midwayensis, Nonionella sp.</u> -----	410 - 420
Do.; plus frequent fragments of fine-grained, indurated, limey, glauconitic sand -----	420 - 440
<u>Planul. toddae, Rob. midwayensis</u> -----	420 - 430
Do.; plus frequent fragments of cream-colored, fossiliferous, somewhat nodular limestone -----	440 - 450
<u>Rob. midwayensis, common</u> -----	440 - 450
Predominately cream-colored, nodular, fossiliferous limestone -----	450 - 560
Do.; plus considerable fine to coarse-grained sand (sand and limestone about equally divided; 50-50) -----	560 - 650
Plus occasional sand grains coated with red-colored clay -----	560 - 570
Plus occasional fragments of pyrite, sand grains coated with purple-colored clay, and grains of "rose" quartz -----	600 - 610
Plus prominent increase in glauconite -----	630 - 640
Do.; plus increasing amounts of gray-colored, micaceous clay, latter becoming fossiliferous at depth, 680' -----	650 - 790
<u>Anom. pseudopapillosa</u> -----	680 - 690
Predominately gray-colored, micaceous, silty, fossiliferous marl -----	790 - 852
Fine to coarse-grained sand interbedded with occasional beds of sandy, shell-bearing limestones -----	852 - 948
Glauconitic, somewhat sandy, fossiliferous, chalky, gray, indurated marl	
Mostly fine to coarse-grained sand interbedded with occasional thin beds of gray-colored, micaceous, glauconitic, fossiliferous, chalky marl -----	948 - 1252
Gray-colored, somewhat sandy, pyritic, glauconitic, fossiliferous marl -----	1252 - 1352
Fine to coarse-grained, glauconitic sand -----	1352 - 1415
Gray to light-brown-colored, fossiliferous, carbonaceous, pyritic, very micaceous, fissile clay interbedded with occasional beds of fine to medium-grained, glauconitic sands -----	1415 - 1965
<u>Kyph. christerni</u> -----	1480 - 1510
<u>Vag. texana</u> -----	1540 - 1570
Clay as in interval, 1415 - 1965 -----	1965 - 2020
Do.; plus increasing amounts of fine to coarse-grained sand -----	2020 - 2070
Same as 1965 - 2020 -----	2070 - 2102
Fine to medium-grained, indurated, highly micaceous, phosphatic, calcareous, sparsely-glauconitic, shell-bearing sand -----	2102 - 2170
Fine to coarse-grained, angular, arkosic sand carrying frequent grains of "rose" quartz -----	2170 - 2630

Description:Depth
in Feet:

Fine to coarse-grained sand interbedded with beds of pale-green to red (mottled)-colored, micaceous, lignitic clay	2630 - 2808
Plus occasional fragments of dark-green to dark-red-colored, greasy, micaceous clay	2720 - 2750
Plus occasional fragments of dark-gray-colored, finely-micaceous, fissile, "speckled" clay (or shale)	2750 - 2780
Highly micaceous, finely-glaucous, indurated sand	2791
Fine to coarse-grained, arkosic, angular sand increasing in amount with increased depth interbedded with occasional beds of pale-green to rust-colored(iron stained), micaceous clay	2808 - 3170 (+)
Medium to coarse-grained, abundantly arkosic sand	2840 - 2870

Summary:Formation:

No Samples	0 - 400
In Paleocene (Midway)	400 - 680
✓ 11 Clayton	440 - 680 630
✓ Upper Cretaceous	630 680 - 2808
Undifferentiated Navarro-Taylor-Austin	680 - 2170
Eutaw	2102 - 2170
Tuscaloosa	2170 - 2808
Upper Tuscaloosa	2170 - 2630
Undifferentiated Mid.-Lower Tuscaloosa	2630 - 2808
✓ Lower Cretaceous (?)	2808 - 3170 (+)
	2850

Possible Water-Bearing Horizons:

Limestone	440 - 560
Fine to coarse-grained sand with some sandy (interbedded) limestones	855 - 950
Fine to coarse-grained sand	1115 - 1175
Do.	1350 - 1415

Remarks:

Possible salt water	2080 - 2808
Definite salt water	2808 (+)

UNPUBLISHED RECORDS
SUBJECT TO REVISION

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES DIVISION

No. GGS 192

OTHER NOS. _____

WELL LOG

State Georgia County Calhoun Subarea _____

Owner J. W. West, Well No. 1

Location 200 feet north of south line and 200 feet east of west line of Land Lot 328,
Land District 4

Drilled by Sowega Minerals Inc. Address _____

Date 6/18/49 - 1/13/50 Casing diam. _____ Land-surf. alt. 349(D.F.)

Source of data Well Cuttings

(Enter type of well, perforations, yield, and drawdown at end of log)

CORRELATION	MATERIAL	THICKNESS (feet)	DEPTH (feet)
	No samples	400	400
	Sand, medium- to coarse-grained, coarsely & abundantly glauconitic, with frequent fragments of gray, micaceous, carbonaceous clay, and sandy, glauconitic limestone & macro-shells	20	420
	Sand, frequent fragments of fine-grained, indurated, limey, glauconitic, with frequent fragments of gray, micaceous, carbonaceous clay, and sandy glauconitic limestone, and macro-shells	20	440
	Sand, frequent fragments of fine-grained, indurated, limey, glauconitic, with frequent fragments of gray, micaceous, carbonaceous clay, and frequent fragments of cream, fossiliferous, somewhat nodular limestone	10	450
	Limestone, predominately cream, nodular, fossiliferous	110	560
	Limestone, predominately cream, nodular, fossiliferous, with considerable fine- to coarse-grained sand (sand and limestone equally divided), with occasional sand grains coated with purple, red clay, and grains of "rose" (600-610) quartz, with prominent increase in glauconite (630-640)	90	650
	Limestone, predominately cream, nodular, fossiliferous, with considerable fine- to coarse-grained sand (sand and limestone equally divided), with increasing amounts of gray, micaceous clay, latter becoming fossiliferous at depth, 680 feet	140	790
	Marl, predominately gray, micaceous, silty, fossiliferous	62	852
	Sand, fine- to coarse-grained, interbedded with occasional beds of sandy, shell-bearing limestones	96	948
	Sand, mostly fine- to coarse-grained, interbedded with occasional thin beds of gray, micaceous, glauconitic, fossiliferous, chalky marl	304	1252

RECORD BY S. M. Herrick DATE _____

SHEET 1 OF 3

UNITED STATES
DEPARTMENT OF THE INTERIOR
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WELL LOG

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Land District 4

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Date 6/18/49 - 1/13/50 Casing diam. _____ Land-surf. alt. 349 (D.F.)

Source of data Well Cuttings

(Enter type of well, perforations, yield, and drawdown at end of log)

CORRELATION	MATERIAL	THICKNESS (feet)	DEPTH (feet)
	Marl, gray, somewhat sandy, pyritic, glauconitic, fossiliferous	100	1352
	Sand, fine- to coarse-grained, glauconitic	63	1415
	Clay, gray to light brown, fossiliferous, carbonaceous, pyritic, very micaceous, fissile, interbedded with occasional beds of fine- to medium-grained, glauconitic sands	550	1965
	Clay, gray to light brown, fossiliferous, carbonaceous, pyritic, very micaceous, fissile, interbedded with occasional beds of fine- to medium-grained, glauconitic sands	55	2020
	Clay, gray to light brown, fossiliferous, carbonaceous, pyritic, very micaceous, fissile, with increasing amounts of fine- to coarse-grained sand	50	2070
	Clay, gray to light brown, fossiliferous, carbonaceous, pyritic, very micaceous, fissile, interbedded with occasional beds of fine- to medium-grained, glauconitic sands	32	2102
	Sand, fine- to medium-grained, indurated, highly micaceous, phosphatic, calcareous, sparsely-glauconitic, shell-bearing	68	2170
	Sand, fine- to coarse-grained, angular, arkosic, with frequent grains of "rose" quartz	460	2630
	Sand, fine- to coarse-grained, interbedded with beds of pale green to red(mottled), micaceous, lignitic clay	178	2808
	Sand, fine- to coarse-grained, arkosic, angular, increasing in amount with increased depth, interbedded with occasional beds of pale green to rust(iron stained), micaceous clay	362	3170(+)
	<u>Summary:</u>		

RECORD BY S. M. Herrick DATE _____ SHEET 2 OF 3

UNITED STATES
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State Georgia County Calhoun Subarea _____

Owner J. W. West, Well No. 1

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Date 6/18/49 - 1/13/50 Casing diam. _____ Land-surf. alt. 349(D.F.)

Source of data Well Cuttings

(Enter type of well, perforations, yield, and drawdown at end of log)

CORRELATION	MATERIAL	THICKNESS (feet)	DEPTH (feet)
	<u>Formation:</u>		
	No samples from 0 to 400 feet		
	In Paleocene (Midway) from 400 to 680 feet		
	Clayton from 440 to 680 feet ⁶³⁰		
	Upper Cretaceous from 680 to 2808 feet ⁶³⁰		
	Undifferentiated Navarro-Taylor-Austin from 680 to 2170 feet (Eutaw from 2102 to 2170 feet)		
	Tuscaloosa from 2170 to 2808 feet		
	Upper Tuscaloosa from 2170 to 2630 feet		
	Undifferentiated Mid.-Lower Tuscaloosa from 2630 to 2808 feet.		
	²⁸⁵⁰ ²⁸⁵⁰ Lower Cretaceous (?) from 2808 to 3170 feet (+)		
	<u>Possible Water-Bearing Horizons:</u>		
	Limestone from 440 to 560 feet		
	Fine- to coarse-grained sand with some sandy (inter-bedded) limestone from 855 to 950 feet		
	Fine- to coarse-grained sand from 1115 to 1175 feet		
	Fine- to coarse-grained sand from 1350 to 1415 feet		
	<u>Remarks:</u>		
	Possible salt water from 2080 to 2808 feet		
	Definite salt water at 2808 feet (+)		