Division	Department		Archives	and Reco	rds Office Use Only
Directorate	Public Affairs				
Group			Filing	Code	
Creative Services Offices (CSO)	/PhotoLab		ARO-68	18	
Location	46R0192		LBNL	Accession	n Date
Transferee	Bailey,Marilee B			7/10/201	5
Head of Department			FRC A	Accession	No.
Pamela Patterson					
Records Title		-			
Public Affairs Creative Services	Office's Photo Lab's Histori	c Analog And Digital Photog	graphs		
Inclusive Date of Record	ls	1	No of C	ontainers	
1937 1993			1	FRC Box	
Brief description of reco	rds				
AT NARA This accession provides photographic documentation of the early history of Berkeley Lab (LBNL). Significant individuals, projects, instruments and events were photographed in the early days of what was then known as the University of California Radiation Laboratory (UCRL). This is a mixed collection described below, attributed to various photographers, many unknown dating from 1931-1977. Definition of the Collections in the Set: HAPPE Collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study extremely high-energy particle interactions. In time the focus of the experiment changed toward the study of cosmology and the role of both particles and radiation in the early universe. This effort included carrying detectors aloft with high-altitude balloon flights and high-flying U2 aircraft. The project was an early precursor to the COBE satellite-born experiments on the cosmic background radiation (which resulted in a 2006 Nobel Prize award for George Smoot and John Mather.) HISS (Heavy Ion Superconducting Spectrometer facility) Berkeley Lab and Tokyo research 184-inch cyclotron onstruction 60-inch cyclotron shutdown Old Town progress shots, for use in preparing for demolition of Old Town. Bevatron site preparation, including Wilson Tract slope stabilization prior to building of the Bevatron warehouse (now Bldg. 46). Images used in the stabilization of Wilson Tract stabilization following 2013 soil slippage above Bldg. 46. Calvin Nobel Prize celebration Historical logbooks and letters Al Ghiorso images related to Hilac research and discovery of element 101 Significant individuals: Seaborg, Lawrence, Cooksey, Ghiorso, Alvarez, Rosenfeld This collection was selected as critical for digitization because of the following factors: 1. General degradation 2. Loinci individual 3. Significant initiatives 4. Limited per					
Photographs - Photographs, Blac	ck and White Negative - Pho	tographs, Color Negatives			

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Records Retention			
Historically Valuable Documents. Do not destroy. A detailed folder listing is included with the Records Transmittal			
Destroy/Review on a scheduled basis with a minimum retention of	years. Disposal/Review Date:	Perm.	
This is in accordance with:			
The National Archive General Retention Schedule. Citation	DOE/ADM/21/1/1A-E		
The Department of Energy Retention Schedule. Citation			
Disposal Authorization:			
The legal retention of the records listed on this Records Transmittal has elauthorize their disposal.	apsed. Since I forsee no use of these reco	ords, I	
Signature of Department Head	Date		

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Public Affairs Creative Services Office's	ographs	

Box

1 DVDs:

[Labelled Analog conversion Project; Lawrence Berkeley Nat'l Laboratory; 1 Cyclotron Rd. Berkeley, CA94720. NARA 5_1_2015, DISC 1] Contents Summary: 5_1_2015_NARA.xls; NARA_5_1_2015.docx; XBD9502-00457.TIF-XBD201406-00805.TIF; /png-- XBD9502-00457.png-ZBD201202-00059.png

[Labelled Analog conversion Project; Lawrence Berkeley Nat'l Laboratory; 1 Cyclotron Rd. Berkeley, CA94720. NARA 5_1_2015, DISC 2] Contents Summary: XBD201406-00807.TIF-ZBD201202-00059.TIF

Photos:

XBD9502-00457.tif -- Arthur C. Wahl, May 1939, at time of graduation, Ames, Iowa. From Arthur Wahl print.

XBD9502-00458.tif -- Arthur C. Wahl in his office/lab at Washington University, St. Louis, in 1946. Courtesy of Arthur C. Wahl, Los Alamos, New Mexico.

XBD9511-05314.TIF -- Discovering Alvarez edited by W. Peter Trower. Four future presidents of the American Physical Society. Left to right: Luis Alvarez, Robert Oppenheimer, Willy Fowler, and Bob Serber. Circa 1938. Damaged negative.

XBD9606-02530.TIF -- Gilbert N. Lewis, the chemist who isolated heavy water, with Deuteron Neutron Source in East Hall in University of California at Berkeley (UCB) in 1937.

XBD9606-02550.TIF -- Prof. Arthur Rosenfeld, Physics Department portrait.

XBD9606-02754.TIF -- Ernest O. Lawrence encourages Lab workers during World War II. Photograph taken May 1942. Cooksey-720.

XBD9606-02775.TIF -- On the 25th anniversary of the discovery of elements 97 and 98, Oakland Tribune newspaper headline, from January 17, 1950, announcing the discovery of another new element, berkelium. Photograph taken January 20, 1975.

XBD9607-03373.TIF -- Charles Pascale adjusts a head holder, part of a patient-positioning device that helps ensure that the charged-particle beam hits the tumor precisely. BBC8809-09069; CBB8809-09068.

XBD9609-04538.TIF -- Meeting reporters after the announcement of the Omega meson discovery are Lynn Stevenson, Bogdan Maglic, Luis Alvarez, Arthur Rosenfeld. Morgue1961-17(P-17). XBD9609-04561.TIF -- New evidence for the "eight-fold way" theory of strong interactions are, left to right: Sheldon Glashow, George Kalbfleisch, and Arthur Rosenfeld. Blackboard notation show how the newly discovered particle, the Y*-1, fits into an unfilled octet of the "ei

XBD9611-05584.TIF -- Arthur C. Wahl and Glenn T. Seaborg in room 307, Gilman Hall, University of California, Berkeley (UCB) on the 25th anniversary of the discovery of plutonium. Edwin McMillan and Glenn T. Seaborg were co-discoverers of plutonium (Pu, element 94). Arthur Wah XBD9702-00326.TIF -- Use of the cylcotron beam to mimic "shooting stars" seen by astronauts. Black hood on subject Cornelius Tobias keeps out light during neutron irradiation experiment at the 184-inch accelerator. Helping to position Tobias in the beam line are (l. to r.) Jo

XBD9703-00901.TIF -- Conclusion of coverage of the hearings of the Joint Committee on Atomic Energy's Subcommittee on Research, Development, and Radiation: excerpts from the testimony of Lawrence Radiation Laboratory physicist Arthur Rosenfeld (on "Processing and Analysis of XBD9703-01198.TIF -- Interior of East Hall at University of California, Berkeley (UCB) in 1937, which housed the deuteron-neutron source. XBB8111-10977; Seaborg Slide H0358.

XBD9703-01202.TIF -- Demolition of Radiation Laboratory, UC Berkeley campus. Photograph taken June 8, 1959. CBB7604-03536; BBC7604-03537.

XBD9705-02071.TIF -- To commemorate the 25th anniversary of the beam, the Laboratory sponsored a dinner reunion on November 3, 1971 at Spenger's to honor those associated with the

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accelerator through the years. The honorees included (standing, l. to r.) Bill Baker, Jack Reide XBD9705-02165.TIF -- 1954 conversion: while 60-inch cyclotron dee stems are pulled out, Pete McWalters checks the water lines. Photograph taken in 1954.

XBD9705-02168.TIF -- Hail and farewell to Crocker's 60-inch cyclotron came after 23 years of faithful service, on June 30, 1962. Just prior to shutdown, a group of old friends take a last look at the machine which played such an important role in their lives: (l. to r.) Bob T

XBD9705-02387.TIF -- Fellow Brits Margaret Alston (seated, L.) and Peter Davey (standing, R.), guest scientists in the Alvarez Group, show His Royal Highness, Prince Philip of England, how bubble chamber films are scanned and measured in the group's data reduction center in B XBD9706-02524.TIF -- BNCT (Boron Neutron Capture Therapy) ADAM Injector with (I to r) Enrique Henestroza, Joe Kwan, & Lou Reginato that constructed a proton accelerator that will be a key element in new brain cancer treatment at Bldg. 71.

XBD9706-02598.TIF -- These men, bending a piece of metal for a sink, are working in the Berkeley Sheet Metal Shop. Left to right: Sheldon Myers (foreman), Earl Vargen, and Jim Tunney. Photograph taken September 1960. Morgue 1960-62(P-3).

XBD9901-00009.TIF -- Glenn Seaborg (left) and Albert Ghiorso at the Hilac. Photograph taken March 7, 1969. XBC693-1793.

XBD9912-02661.TIF -- 60-inch cyclotron beam taken in April 1958. 60-inch-668C.

XBD200005-00760.TIF -- Cornelius Tobias with John MaGee, Stan Curtis, and Eleanor Blakely, 1979.

XBD200005-00780.TIF -- Left to right: Lloyd Smith, Edwin McMillan, Ernest Orlando Lawrence, Edward Lofgren, William Brobeck, and Duane Sewell looking at model of Bevatron. Photograph undated.

XBD200005-00811.TIF -- Use of the cylcotron beam to mimic "shooting stars" seen by astronauts. Black hood on subject Cornelius Tobias keeps out light during neutron irradiation experiment at the 184-inch accelerator. Tobias is positioned in a 640 mev neutron beam by Thomas Budi XBD200106-00934.TIF -- Glenn T. Seaborg's Nobel prize medal, obverse side. XBC7603-02085 and Morgue 1964-60(P-1).

XBD200106-00950.tif -- Exterior view of the 184-inch cyclotron building looking west. Undated. Cooksey-713.

XBD200106-00953.TIF -- Ernest Orlando Lawrence inspecting the magnet at the Federal Telegraph Co. Photograph taken in 1930 or 1931. Cooksey-728.

XBD200106-00959.TIF -- Exterior view of 184-inch cyclotron building looking west. Undated. Cooksey-714

XBD200106-00963.TIF -- 184-inch cyclotron. Photograph taken in 1942.Cooksey-710.

XBD200106-00964.TIF -- Lawrence Berkeley Laboratory's scientific and technical staff arranged within and on top of the magnet of the 60-inch cyclotron. Top from left to right: Philip H. Abelson, Arthur H. Snell, Paul C. Aebersold, Martin D. Kamen, Luis W. Alverez, Robert Cornog

XBD200106-00984.TIF -- 60-inch cyclotron shot with tank out with Eric and Margaret Lawrence inside the two chamber tank. Photograph taken January 18 or 22, 1939. Original negative label Cooksey film #12, Part A, Frame #24. Cooksey-795.

XBD200208-00456.TIF -- John W. Gofman preparing ultracentrafuge at Donner Lab, 1949. XBB7909-12756.

XBD200311-00702.TIF -- Dr. Rosenfeld at blackboard, for article on electrical savings in LBL Newsmagazine. XBB8302-01362.

XBD200905-00190.TIF -- Ernest Orlando Lawrence talking to workers near construction site of 184-inch cyclotron. Digitally manipulated composition of Cooksey-720 and Cooksey-578. Original

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photograph taken October 23, 1941.

XBB8811-11127.

XBD200912-01017.TIF -- October 9, 1931 letter to Dr. Ernest Orlando Lawrence from Leonard F. Fuller, Vice-Predident and Chief Engineer of Federal Telegraph Company confirming that the Federal Telegraph Company lent Lawrence a variable Iron Core Reactor and a 20 KW Oscillator Tu XBD200912-01018.TIF -- Two pages of Glenn T. Seaborg's logbook from March 4, 1941 through March 26, 1941 outlining his discovery of plutonium (PU) referred to in the logbook as Sample A. XBD201008-01067.TIF -- Lynn Stevenson, Frank Solmitz, Art Rosenfeld, Luis Alvarez, and Lena Galtieri with display of bubble chambers, from 2-inch through 72-inch. XBB6811-6892. XBD201008-01068.TIF -- Art Rosenfeld portrait, June 1, 1971. XBP716-2408 XBD201009-01142.TIF -- Art Rosenfeld "Welcome Back" reception at the cafeteria. Poster titled "In Search of the Rosenfeld Effect. "The Founder Father of Energy Conservation. Sept.10, 2010.

XBD201104-00385.TIF -- Art Rosenfeld at the Fermi Award Ceremony in 2006.

XBD201105-00587.TIF -- Art Rosenfeld EETD Energy Efficiency researcher with young researcher. XBD201105-00646.TIF -- Casual portrait of Art Rosenfeld, EETD. Photograph taken May 4, 1989. XBP 8005-04364

XBD201111-01324.TIF -- Frank Crawford with Corrugahorn Bugle. Photograph taken October 24, 1975. XBB7510-7850.

XBD201111-01330.TIF -- Dr. Edwin McMillan with mousetrap cigarette lighter atom smasher apparatus (Rube Goldberg inspired). Photograph taken March 21, 1974. XBB743-1774. XBD201111-01339.TIF -- Luis Alvarez with monoploe set-up, April 1969. XBB6904-02184. XBD201111-01340.TIF -- Lynn Stevenson, Frank Solmitz, Art Rosenfeld, Luis Alvarez, and Lena Galtieri with display of bubble chambers, from 2-inch through 72-inch. XBB6904-02184. ZBD201202-00059.TIF -- United States War Department Army Service Forces Corps of Engineers Manhattan District Certificate awarded to the University of California for services rendered in the production of the Atomic Bomb contributing to the successful conclusion of World War II XBD201212-01808.TIF -- Balloon, barrage and tower at Alamogordo, Los Alamos, July, 1945. Requested by Owen Chamberlain. XBB8905-03964.

XBD201302-01944.TIF -- 2011 National Medal of Technology and Innovation Laureate Art Rosenfeld with President Obama. Award ceremony, 2013. White House photograph. XBD201303-02020-10.TIF -- Ceremonial launch of the ITRI-Rosenfeld Fellowship - Art Rosenfeld XBD201303-02020-29.TIF -- Ceremonial launch of the ITRI-Rosenfeld Fellowship - Art Rosenfeld with Berkeley Lab Director Paul Alivisato.

XBD201312-04476-65.TIF -- EETD 40th Anniversary - speakers at Bldg 50 auditorium including Art Rosenfeld, Andy Sessler, Ashok Gadgil, and Horst Simon. Award ceremony at Pers Hall for Art Rosenfeld with attendees Nancy Skinner and Carl Blumstein. Art Rosenfeld shown here with atten XBD201312-04476-76.TIF -- EETD 40th Anniversary, speakers at Bldg. 50 auditorium including Art Rosenfeld, Andy Sessler, Ashok Gadgil, and Horst Simon. Award ceremony at Pers Hall for Art Rosenfeld with attendees Nancy Skinner and Carl Blumstein. Dr. Rosenfeld shown here with grou XBD201312-04476-80.TIF -- EETD 40th Anniversary, speakers at Bldg. 50 auditorium including Art Rosenfeld, Andy Sessler, Ashok Gadgil, and Horst Simon. Award ceremony at Pers Hall for Art Rosenfeld with Horst Simon, Ashok Gadgil, and others. Art Rosenfeld shown here with young res XBD201405-00597.TIF -- Helen and Glenn T. Seaborg attending an American Committee for the Weizmann Institute of Science event. Photograph taken March 25, 1993.

XBD201405-00605.TIF -- 60-inch cyclotron shut down party, July 7, 1963. Front row: John Lawrence, Robert Thornton, Paul Aebersold, K. McKenzie, unidentified, Ed Lofgren, and unidentified individual. Back row: Donald Cooksey (third from left,) W. Reynolds (fifth from left,)

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and

XBD201405-00607.TIF -- 60-inch cyclotron shut down party, July 7, 1963. Left to right: K. McKenzie, Ed Lofgren, Robert Thornton, Donald Cooksey, Bill Brobeck, and Paul Aebersold. XBB771-153A.

XBD201406-00637.TIF -- Glenn Seaborg (left) and Al Ghiorso at the Hilac. Photograph taken March 7, 1969, XBC693-1794.

XBD201406-00638.TIF -- Glenn Seaborg (left) and Al Ghiorso at the Hilac. Photograph taken March 7, 1969. XBC693-1795.

XBD201406-00639.TIF -- Glenn Seaborg at the Hilac. Photograph taken March 7, 1969. XBC693-1797.

XBD201406-00640.TIF -- Al Ghiorso at the 104-wheel. Photograph taken March 7, 1969. XBC693-1800.

XBD201406-00641.TIF -- Bob Main (left) and Al Ghiorso at the Hilac. Photograph taken March 7, 1969. XBC7011-5227.

XBD201406-00642.TIF -- Looking into SASSY velocity separator beam line. Photograph taken February 28, 1972. BBC722-1247.

XBD201406-00643.TIF -- Barbarian walls of the old city of Warsaw, W. Billig, Glenn Seaborg, T. Wojcik, N. Neuriter, and Al Ghiorso. Photograph taken October 19, 1967. BBC774-3171.

XBD201406-00644.TIF -- Visiting the Academy of Sciences, Moscow, USSR. I.Y. Tamm, A. Zucker, A. Luedecke, Albert Ghiorso, N.N. Semenov, A. Crewe, M.V. Keldysh, Glenn Seaborg, I.D. Morokhov, M.D. Millionshchikov, A.P. Vinogradov, G. Tape, V.I. Spitsyn, L.A. Artsimovich, and D.V.

XBD201406-00645.TIF -- Element-106 experiment. Gas-cooled windows for target-chamber. Photograph taken August 27, 1974. BBC7408-05914.

XBD201406-00646.TIF -- Albert Ghiorso's 60th birthday party festivities. Photograph taken July 17, 1975. BBC757-5360.

XBD201406-00647.TIF -- 25th anniversary of elements 97 and 98. Left to right: Kenneth Street, Stanley Thompson, Glenn Seaborg and Albert Ghiorso. Photograph taken January 20, 1975. XBB751-0856.

XBD201406-00648.TIF -- Albert Ghiorso with a Pachinko machine. Photograph taken July 17, 1975. BBC757-5361.

XBD201406-00649.TIF -- Left to right: Glenn Seaborg, Dr. Zvara, and Albert Ghiorso. Photograph taken April 30, 1976. XBC765-3891.

XBD201406-00650.TIF -- Albert Ghiorso with a bottle of "Ghiorsium." Photograph taken December 21, 1956. XBC769-8630.

XBD201406-00651.TIF -- Albert Ghiorso, Osborne, Glenn Seaborg, Hindman, Magnusson, Jones (partial) by the back of the new chemistry building. "MET lab journal." Plutonium story vol. 5, Battelle Press, Pub 112, vol. 4, fig. 57. Photograph taken March 1946. XBB9309-06133.

XBD201406-00652.TIF -- The Physics Technical Institute at Obninsk, Russia, USSR. A.

Petrosyants, Glenn Seaborg, Mikolayev, M.P. Rodionov, A. Zucker, Apollonov, V.I. Subbotin, A. Wells, O.D. Kazachkovsky, Albert Ghiorso, G. Tape, M. Benedict, D.M. Ovechkin, A. Crewe, and A. Lued

XBD201406-00653.TIF -- SASSY equipment, Albert Ghiorso. Photograph taken August 13, 1979. BBC7908-10308.

XBD201406-00654.TIF -- SASSY equipment, Albert Ghiorso. Photograph taken August 13, 1979. BBC7908-10310.

XBD201406-00655.TIF -- Kari Eskola (left) and Albert Ghiorso with SASSY detector array.

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Photograph taken January 10, 1983. XBC8301-00971.

XBD201406-00656.TIF -- 25th anniversary celebration commemorating the discovery of element-101. G. Choppin, Glenn Seaborg, B.G. Harvey, and Albert Ghiorso. Photograph taken March 28, 1980. BBC8807-07139.

XBD201406-00657.TIF -- Albert Ghiorso (left) and Glenn Seaborg at the ACS meeting in Honolulu, Hawaii. Photograph taken December 19, 1984. BBC8906-04778.

XBD201406-00658.TIF -- Albert Ghiorso's 76th birthday celebration (with 110 balloons). Group lined up against the railing of the building 71 bay. Photograph taken July 16, 1991. XBC9107-05344. XBD201406-00659.TIF -- Motor pool supervisor, Charlie Bowden, in the driver's seat of a small bus, along with motor pool drivers Mary Croutch, Mack Johnson, Marie Lahey, and Ray Wood (UC garage supervisor). Photograph taken April 1963. Morgue-1963-79(P.1).

XBD201406-00660.TIF -- Jim Harris (left) and Albert Ghiorso with element 105 target. Photograph taken April 21, 1970. XBB704-1875.

XBD201406-00661.TIF -- Jim Harris (right) and Albert Ghiorso with element 105 target.

Photograph taken April 21, 1970. XBB704-1876.

XBD201406-00662.TIF -- AP press interview photo of Albert Ghiorso at desk. Photograph taken September 29, 1971. XBB719-4693.

XBD201406-00663.TIF -- AP press interview photo of Albert Ghiorso. Photograph taken September 29, 1971. XBB719-4694.

XBD201406-00664.TIF -- Albert Ghiorso. Photograph taken May 19, 1972. XBB725-2895.

XBD201406-00665.TIF -- AEC (Atomic Energy Commission) visit. Left to right: Albert Ghiorso, Schlessinger, and Glenn Seaborg. Photograph taken September 22, 1972. XBB729-4967.

XBD201406-00666.tif -- AEC (Atomic Energy Commission) visit. Left to right: Albert Ghiorso, Schlessinger, and Glenn Seaborg. Ed McMillan (in foreground). Photograph taken September 22, 1972. XBB729-4968.

XBD201406-00667.TIF -- 25th anniversary of the discovery of elements 97 and 98, Albert Ghiorso giving speech. Photograph taken January 20, 1975. XBB751-0644.

XBD201406-00668.TIF -- Albert Ghiorso (left) and Glenn Seaborg at the Hilac. Photograph taken March 7, 1969. XBC693-1791.

XBD201406-00669.TIF -- Russian visitors at Hilac. Left to right: Albert Ghiorso, K. Keldysh, Glenn Seaborg, and Korneev. Photograph taken October 24, 1972. XBB7211-5707.

XBD201406-00670.TIF -- Russian visitors at Hilac. K. Keldysh, Glenn Seaborg, and Albert Ghiorso. Photograph taken October 24, 1972. XBB7211-5710.

XBD201406-00671.TIF -- Russian visitors at Hilac. Korneev, K. Keldysh, Albert Ghiorso, and Glenn Seaborg. Photograph taken October 24, 1972. XBB7211-5711.

XBD201406-00672.TIF -- Albert Ghiorso in front of periodic elements chart. Photograph taken January 4, 1979. XBP791-00472.

XBD201406-00673.TIF -- Albert Ghiorso at Chicago University 35th anniversary reunion. Photograph taken July 14, 1979. XBP7907-09110.

XBD201406-00675.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex

XBD201406-00676.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00680.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became

known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived

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as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00681.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00683.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00685.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00688.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00690.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00693.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00694.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00695.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00698.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00699.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00700.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00701.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00706.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00718.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00724.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00730.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became

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known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00731.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00733.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00734.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00735.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00736.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00738.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00739.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00740.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00744.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00749.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00751.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00752.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00754.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00770.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00773.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex

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XBD201406-00775.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00776.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00777.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00778.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00779.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00780.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00781.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00783.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00786.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00790.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00793.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00795.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00796.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00798.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00799.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00802.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived

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as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00803.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00804.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00805.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00807.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201406-00810.TIF -- HAPPE collection 1964-68. In 1964 Luis Alvarez proposed what became known as the High Altitude Particle Physics Experiment (HAPPE), which was originally conceived as a large superconducting magnet carried to high altitude by a balloon in order to study ex XBD201407-00816.TIF -- Glenn Seaborg with unidentified individual at a seminar coordinated by Heinz Heinemann. Photograph taken September 1997. Slide collection courtesy of Moira Howard-

XBD201407-00817.TIF -- Glenn Seaborg with Heinz Heinemann at a seminar coordinated by Dr. Heinemann. Photograph taken September 1997. Slide collection courtesy of Moira Howard-Jeweler. XBD201407-00818.TIF -- Glenn Seaborg with Heinz Heinemann at a seminar coordinated by Dr. Heinemann. Photograph taken September 1997. Slide collection courtesy of Moira Howard-Jeweler. XBD201407-00819.TIF -- Glenn Seaborg with Heinz Heinemann at a seminar coordinated by Dr. Heinemann. Photograph taken September 1997. Slide collection courtesy of Moira Howard-Jeweler. XBD201407-00820.TIF -- Heinz Heineman speaking at a seminar with Glenn Seaborg. Photograph taken September 1997. Slide collection courtesy of Moira Howard-Jeweler.

XBD201407-00821.TIF -- Martha A. Krebs, LBL's Associate Laboratory Director for Planning and Development, speaking at a seminar coordinated by Heinz Heinemann. Krebs was nominated by President Clinton to head the Department of Energy's Office of Energy Research. hotograph taken XBD201407-00822.TIF -- Glenn Seaborg speaking at a seminar coordinated by Heinz Heinemann. Photograph taken September 1997. Slide collection courtesy of Moira Howard-Jeweler. XBD201407-00823.TIF -- Glenn Seaborg speaking at a seminar coordinated by Heinz Heinemann.

Photograph taken September 1997. Slide collection courtesy of Moira Howard-Jeweler. XBD201407-00824.TIF -- Glenn and Helen Seaborg at a seminar coordinated by Heinz Heinemann.

Photograph taken September 1997.Slide collection courtesy of Moira Howard-Jeweler. XBD201407-00825.TIF -- Glenn Seaborg signing a table of the elements at a seminar coordinated by

XBD201407-00825.TIF -- Glenn Seaborg signing a table of the elements at a seminar coordinated by Heinz Heinemann. Photograph taken September 1997. Slide collection courtesy of Moira Howard-Jeweler.

XBD201407-00826.TIF -- Glenn Seaborg signing a table of the elements at a seminar coordinated by Heinz Heinemann. Photograph taken September 1997. Slide collection courtesy of Moira Howard-Jeweler.

XBD201407-00827.TIF -- Attendees at a seminar coordinated by Heinz Heinemann. Photograph taken September 1997. Slide collection courtesy of Moira Howard-Jeweler.

XBD201407-00828.TIF -- A "table of the elements" signed by Glenn Seaborg at a seminar coordinated by Heinz Heinemann. Photograph taken September 1997. Slide collection courtesy of Moira Howard-Jeweler.

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XBD201407-00829.TIF -- B-50A Beam-30-2 with S. Nagamiya, S. Schnetzer, R. Lombard, E. Moller, I. Tanihata, Y. Miake, S. Kadota, O. Hashimoto. Photograph taken June 18,1980. CBB8006-07593.

XBD201407-00830.TIF -- HISS experiment. University of Tokyo LBL Collaboration. Photograph taken November 04, 1984. CBB8511-09104

XBD201407-00831.TIF -- HISS Drift Chamber 1/2x2m with Fred Bieser and Toshio Kodayashi. Photograph taken May 22, 1986. CBB8605-04441

XBD201407-00832.TIF -- HISS Magnet Group experiment-772. Photograph taken July 2, 1985. CBB8507-05183

XBD201407-00833.TIF -- HISS experiment-3593-setup with Toshio Kobayashi and Osamu Hashimoto. Photograph taken December 14, 1983. CBB8312-10962

XBD201407-00834.TIF -- HISS Velocity-Measuring Detector with Craig Tull and Douglas Olson. Photograph taken February 25, 1986. CBB8602-01363

XBD201407-00835.TIF -- B-6 University of Tokyo group in 184-inch meson cave with: J. Brewer, O. Chamberlain, S. Nagamiya, T. Yamazaki, K. Crowe, and Osamu Hashimoto. Photograph taken May 10, 1974. CBB7405-3283.

XBD201407-00836.TIF -- Osaka University, March 23, 1970, Hiroo Kumagai, Seishi Kikuchi, Tetsuo Wakatsuki, Koichi Sugimoto, Glenn Seaborg (center). Photograph taken January 9, 1976. XBB7601-07030

XBD201407-00837.TIF -- HISS experiment-3593. Top row: Osamu Yamakawa, Osamu Hashimoto. Middle row: Hideki Hamagaki, Tom Humanic, Koich Nakayama, Herb Steiner. Seated: Toshio Kobayashi, Isao Tamihata. Photograph taken December 14, 1983. CBB8312-10964

XBD201407-00838.TIF -- B-88 GERMANIUM-HIBALL-GROUP CAVE-1 WITH

MACCHIAVELLI, AUGUSTO, HERSKIND, BRENT, DELEPLANQUE, MARIE-AGNES,

DIAMOND, RICHARD-C. LEE, MON, STEPHENS, FRANK, DINES, EUGENE. Photograph taken December 9,1983. CBB8312-10982

XBD201407-00839.TIF -- B-50A HISS-MAGNET GROUP. Photograph taken May 28, 1981. CBB8105-04794

XBD201407-00857.TIF -- Demolition of Radiation Laboratory, UC Berkeley campus. Photograph taken June 8, 1959. XBC763-2688.

XBD201407-00859.TIF -- Demolition of Radiation Laboratory, UC Berkeley campus. Photograph taken June 8, 1959. BBC764-3535.

XBD201407-00861.TIF -- 184-inch cyclotron magnet with dee (vacuum) tank being installed.

Robert Thornton (right) and Edwin McMillan. Photograph date unknown. 184"-277.

XBD201407-00863.TIF -- Bevatron grading and site work. August 25, 1949. Bevetron-99.

XBD201407-00864.TIF -- Bevatron grading and site work, Wilson Tract. Photograph taken March 30, 1949. Bevatron-18.

XBD201407-00865.TIF -- Bevatron grading and site work. Photograph taken March 29, 1949. Bevatron-19.

XBD201407-00866.TIF -- Wilson Tract warehouse construction, grading and site work. Photograph taken March 29, 1949. Bldg.-535.

XBD201407-00867.TIF -- Wilson Tract warehouse construction, grading and site work. Photograph taken March 29, 1949. Bldg.-536.

XBD201407-00868.TIF -- Warehouse construction, bevatron area site preparation. Photograph taken May 18, 1949. Bldg.-577.

XBD201407-00869.TIF -- Warehouse construction, bevatron area site preparation. Photograph taken May 17, 1949. Bldg.-587.

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XBD201407-00870.TIF -- Site preparation, bevatron warehouse. Photograph taken June 17, 1949. Bldg.-624.

XBD201407-00871.TIF -- Site preparation, bevatron warehouse. Photograph taken June 17, 1949. Bldg.-625.

XBD201407-00872.TIF -- Bevatron warehouse grading. Photograph taken June 23, 1949. Bldg.-634. XBD201407-00873.TIF -- Bevatron warehouse site from top circle, Bldg. 30. Photograph taken July 29, 1949. Bldg.-657.

XBD201407-00874.TIF -- Bevatron warehouse site. Bldg. 7 from top circle, Bldg. 30. Photograph taken July 29, 1949. Bldg.-658.

XBD201407-00875.TIF -- New bevatron warehouse. Photograph taken October 6, 1949. Bldg.-695. XBD201407-00876.TIF -- New bevatron warehouse, interior firewalls. Photograph taken November

28, 1949. Bldg.-715. XBD201407-00877.TIF -- Slope stabilization behind Bldg. 46. Photograph taken March 20, 1952. Bldg.-823.

XBD201407-00878.TIF -- Slope stabilization behind Bldg. 46. Photograph taken March 14, 1952. Bldg.-824.

XBD201407-00879.TIF -- Cooling tower construction, Bldg. 64. Photograph taken March 20, 1961. Bldg.-3698.

XBD201407-00880.TIF -- Cooling tower construction, Bldg. 64. Photograph taken March 20, 1961. Bldg.-3700.

XBD201407-00881.TIF -- Cooling tower CT-2-64 back of Bldg. 64. Photograph taken May 28, 1965. Bldg.-9340.

XBD201407-00882.TIF -- Cooling tower CT-2-64 back of Bldg. 64. Photograph taken May 28, 1965. Bldg.-9341.

XBD201407-00883.TIF -- Cooling tower back of Bldg. 64, progress. Photograph taken June 7, 1965. Bldg.-9348.

XBD201407-00884.TIF -- Cooling tower back of Bldg. 64, progress. Photograph taken June 9, 1965. Bldg.-9381.

XBD201407-00885.TIF -- Cooling tower back of Bldg. 64, progress. Photograph taken June 9, 1965. Bldg.-9473.

XBD201407-00886.TIF -- Cooling tower, progress. Photograph taken July 2, 1965. Bldg.-9474.

XBD201407-00887.TIF -- Corp. Yard Road to Biomedical, progress. Photograph taken July 2, 1964. Bldg.-8568.

XBD201407-00888.TIF -- Corp. Yard Road to Biomedical, progress. Photograph taken July 2, 1964. Bldg.-8569.

 $XBD201407-00889.TIF -- Corp.\ Yard\ Road\ to\ Biomedical,\ progress.\ Photograph\ taken\ July\ 2,\ 1964.\ Bldg.-8570.$

XBD201407-00890.TIF -- Aerial view of U.C. Berkeley and U.S.A.E.C Central Research Laboratory site. Photograph taken February 2,1948. Bldg.-368.

XBD201407-00891.TIF -- Plan A, view of site of U.S.A.E.C. Central Research Laboratory. Hertzka & Knowles, Architects. February 2,1948. Bldg.-372.

XBD201407-00892.TIF -- General view of grading work for Central Research Laboratory building. Photograph taken September 22, 1948. Bldg.-450.

XBD201407-00893.TIF -- Grading work for Central Research Laboratory building. Photograph taken September 28, 1948. Bldg.-452.

XBD201407-00894.TIF -- New bevatron warehouse construction. Photograph taken September 15, 1949. Bldg.-682.

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XBD201407-00895.TIF -- Wilson Tract bevatron site work. Photograph taken May 16, 1949. Bevatron-29.

XBD201407-00896.TIF -- Bevatron excavation Wilson Tract. Photograph taken May 18, 1949. Bevatron-31.

XBD201407-00897.TIF -- Scale model of bevatron. Photograph taken May 25, 1949. Bevatron-33.

XBD201407-00898.TIF -- Bevatron site preparation, Wilson Tract. Photograph taken June 17, 1949. Bevatron-38.

XBD201407-00899.TIF -- Bevatron site preparation, Wilson Tract. Photograph taken June 17, 1949. Bevatron-44.

XBD201407-00900.TIF -- Northern slope of bevatron excavation, Wilson Tract. Photograph taken July 6, 1949. Bevatron-53.

XBD201407-00901.TIF -- Northwest section of bevatron excavation, Wilson Tract. Photograph taken July 28, 1949. Bevatron-79.

XBD201407-00902.TIF -- Initial stages of bevatron bldg. construction. Photograph taken October 13, 1949. Bevatron-151.

XBD201407-00903.TIF -- Northeast corner of bevatron area. Photograph taken October 24, 1949. Bevatron-158.

XBD201407-00904.TIF -- Bevatron East slide area. Photograph taken November 17, 1949. Bevatron-168.

XBD201407-00905.TIF -- Northwest view of bevatron building construction. Photograph taken November 28, 1949. Bevatron-175.

XBD201407-00906.TIF -- Northwest view of bevatron building construction. Photograph taken November 28, 1949. Bevatron-176.

XBD201407-00907.TIF -- Grading on East rim of bevatron area for slides. Photograph taken December 6, 1949, Bevatron-181.

XBD201407-00908.TIF -- Grading on East rim of bevatron area for slides. Photograph taken December 6, 1949. Bevatron-182.

XBD201407-00909.TIF -- Northwest end of Bevatron grading. Photograph taken December 6, 1949. Bevatron-185.

XBD201407-00910.TIF -- Preliminary shot of new road from Bldg. 71 to East Lot. Photograph taken May 25, 1962. Bldg.-4569.

XBD201407-00913.TIF -- 60-inch cyclotron shut-down party, July 7, 1963. Photograph includes Donald Cooksey, W. Reynolds, William Brobeck, Robert Cornog, David Sloan, John Lawrence, Robert Thornton, Paul Aebersold, K. McKenzie, B. Wright, Ed Lofgren, and Duane Sewell. XBB771-153

XBD201407-00918.TIF -- Bevatron building grading and site work. Photograph taken August 16, 1949 Bev -85

XBD201407-00923.TIF -- Party honoring those associated with the accelerator through the years, with the wives of scientists and associated personnel. XBB771-153C.

XBD201407-00924.TIF -- Party honoring those associated with the accelerator through the years, with Ken McKenzie, Ed Lofgren, Robert Thornton, Donald Cooksey, William Brobeck, Paul Aebersold.XBB771-153B.

XBD201407-00925.TIF -- 184-inch cyclotron building under construction. Photograph taken October 23, 1941. Cooksey-573. See XBD9703-01130.TIF for similar.

XBD201407-00926.TIF -- Edwin McMillan (upper left), Paul Aebersold, William Brobeck, and John Backus working on last coil of upper bank on the 60-inch cyclotron. Photo taken February 13, 1940. Cooksey-179.

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XBD201407-00928.TIF -- 184-inch cyclotron under construction. Photograph taken October 20, 1941. Cooksey-572.

XBD201408-01023.TIF -- 60-inch cyclotron. Photograph taken March 20, 1939.

XBD201408-01024.TIF -- 60-inch cyclotron. Deuteron beam 16.5 MeV. Photograph taken October 5, 1939. Morgue-1944-80(P-2)-C; Cooksey-62.

XBD201408-01025.TIF -- 60-inch cyclotron. Photograph taken March 20, 1939. Morgue-1944-80(P-1)-C.

XBD201408-01026.TIF -- 60-inch cyclotron. Left to right: Donald Cooksey and Ernest Lawrence. Photograph taken March 20, 1939. Morgue-1944-80(P-3)-C.

XBD201408-01027.TIF -- 60-inch cyclotron. Donald Cooksey (below) and Ernest Lawrence (on balcony). Photograph taken March 20, 1939. Morgue-1944-80(P-4)-C.

XBD201408-01028.JPG -- Letter dated November 15, 1939 to Ernest Orlando Lawrence from H. Shaw of The Science Museum, South Kensington, London. Congratulations him for winning the Nobel Prize in Physics and informing Lawrence that the 11-cyclotron that he lent to the museum had XBD201408-01029.JPG -- Letter dated December 4, 1939 from Ernest Orlando Lawrence to H. Shaw of The Science Museum, South Kensington, London, thanking Shaw for the congratulations on his winning the Nobel Prize in Physics. Additionally, he expresses his appreciation for the mus XBD201408-01030.JPG -- Letter dated December 4, 1939 from Ernest Orlando Lawrence to H. Shaw of The Science Museum, South Kensington, London, thanking Shaw for the congratulations on his winning the Nobel Prize in Physics. Additionally, he expresses his appreciation for the mus XBD201408-01031.TIF -- HISS magnet winding machine associated with I. Tanihata, O. Hashimoto, H. Hamagaki, S. Kadota. Photograph taken July 28, 1981. CBB8107-07042 XBD210408-01032.TIF -- HISS beam 30 multiplicity counter array with spectometer magnet associated with Hashimoto, Osamu; Tanihata, Isao; Hamagaki, Hideki; Hayashi, Shigehiro; Yamakawa, Osamu; Sugimoto, Kenzo; Roche, Guy; Schroeder, Lee; Nagae, Tomofumi; Miller, Jack. Photo take

XBD201408-01033.TIF -- HISS experimental area associated with James Simmons and Barry Berman. Photograph taken April 14, 1983. CBB8304-03985.

XBD201408-01034.TIF -- Germanium Hiball Group cave-1. Left to right: Augusto Macchiavelli, Brent Herskind, Marie-Agnes Deleplanque, Richard (Dick) Diamond, Mon Lee, Frank Stephens, and Eugene Dines. Photograph taken December 9, 1983. CBB8312-10983.

XBD201408-01035.TIF -- HISS velocity detector. To be used with permission of Corporate Public Relations, Digital Equipment Corporation (617) 897--5111. CBB8512-10113.

XBD201408-01036.TIF -- HISS velocity measuring detector. Craig Tull standing and Douglas Olson, kneeling. Photograph taken February 25, 1986. CBB8602-01369.

XBD201408-01037.TIF -- Howard Wieman and Hans-Georg Ritter standing in front of the EOS TPC at the Bevalac. This was a very important device in developing the technology used in the STAR detector at RHIC. XBB927-05603.

XBD201408-01038.TIF -- HISS beam 30 multiplicity counter array and spectometer magnetic with Lee Schroeder, Tomfumi Nagae, Kenzo Sugimoto, and Guy Roche standing left; Osamu Hashimoto, Isao Tanihata, Hideki Hamagaki, Shigehiro Hayashi, and Osamu Yamakawa, kneeling front; Jack M XBD201408-01039.TIF -- Bldg. 51 experiment 299H Pi Sphere, Nuclear Physics with S. Nagamiya, M.C. LeMaire, and S. Schnetzer. Photograph taken January 24, 1979. CBB791-1243.

XBD201408-01040.TIF -- HISS experiment in University of Tokyo, LBL collaboration. Back row, left to right: T. Kobayashi, K. Takeyama, K. Omata, N. Takahashi. Front row: I. Tanihata, Y. Nojiri, T. Shimada, K. Sugimoto. Photograph taken November 4, 1985. BBC8511-09107.

XBD201408-01041.TIF -- Drift chamber 30 X 40 cm HISS-II with Leo Greiner. Photograph taken

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June 29, 1984. CBB8406-04841.

XBD201408-01042.TIF -- HISS experiment in University of Tokyo, LBL collaboration. Back row left to right: K. Takeyama, K. Sugimoto, N. Takahash, I. Tanihata, T. Shimada, Y. Nojiri. Kneeling: K. Omata, T. Kobayashi. Photograph taken November 4, 1985. BBC8511-09105.

XBD201408-01043.TIF -- Wide angle magnetic spectrometer with S. Nagamiya. Photograph taken November 15, 1976. CBB7611-10484.

XBD201408-01044.TIF -- HISS experiment in University of Toyko, LBL collaboration. Back row left to right: T. Kobayashi. K. Takeyama, K. Omata, N. Takahash. Front row: I. Tanihata, Y. Nojiri, T. Shimada, K. Sugimoto. Photograph taken November 4, 1985. CBB8511-09106.

XBD201408-01045.TIF -- HISS Magnet Group. Left to right: Walter Muller, Craig Tull, Hans Sann, Hank Crawford, Doug Olson, Dana Beavis, Fred Bieser, Tony Abbott, Howard Wieman, Bill Christie, Raymond Trockel, James, Symons, and Peter Lindstrom. Photograph taken May 6, 1987. CBB8

XBD201408-01046.TIF -- HISS drift chamber with S. Fukuda, K. Matsuta, T. Kobayashi, K. Yoshida. Photograph taken March 10, 1992. CBB9203-01740.

XBD201409-01129.TIF -- RTSG VAX computer work with Oliver Jones, Ted Theil, and Tom Viola. Photograph taken January 12, 1987. XBB8701-00126

XBD201409-01130.TIF -- VAX computer, Tektronix 4014 and TI 735 terminal with Bill Greiman and Helena Gin. Photograph taken January 9, 1979. XBB7901-00737.

XBD201409-01131.TIF -- Ilkka Karasalo, Bill Greiman, Helana Gin, Deane Merrill, and Les Tabata. Photograph take January 9, 1079. XBB7901-00738.

XBD201409-01132.TIF -- Close-up screen, Tecktronix 4014. Photograph taken January 9, 1979. XBB791-00739.

XBD201409-01133.TIF -- TI 735 terminal with Carl Quong and Lesta Nadel. Photograph taken January 9, 1979. XBB791-00740.

XBD201409-01134.TIF -- TI 735 terminal with Carl Quong and Lesta Nadel. Photograph taken January 9, 1979. XBB791-00741.

XBD201409-01135.TIF -- COPE controller, central computing facility, Dan Van Zile. Photograph taken February 2, 1973. XBB732-0595.

XBD201409-01136.TIF -- Ruth Hinkins, math and computing programmer for Physics Division.XBB719-4380.

XBD201410-01178.TIF -- Shutdown of 60-inch cyclotron at Crocker Lab. Left to right: Robert Thornton, Edwin McMillan, John Lawrence, and Donald Cooksey. Photo taken September 25, 1962. 35mm slide 5.

XBD201410-01179.TIF -- Shutdown of 60-inch cyclotron. John Lawrence and Edwin McMillan with "Dees". Photo taken September 25, 1962. 35mm slide 13.

XBD201410-01180.TIF -- Shutdown of 60-inch cyclotron. John Lawrence and Edwin McMillan with "Dees". Photo taken September 25, 1962. 35mm slide 14.

XBD201410-01181.TIF -- Shutdown of 60-inch cyclotron. Donald Cooksey at control panel with Robert Thornton and Edwin McMillan. Photo taken. September 25, 1962. 35mm slide 18. XBD201410-01182.TIF -- Shutdown of 60-inch cyclotron. Edwin McMillan, Robert Thornton, and

Donald Cooksey in control room. Photo taken. September 25, 1962. .

XBD201410-01185.TIF -- 184-inch cyclotron. Photo taken December 23, 1946. 184-inch-604. XBD201410-01192.TIF -- Party for Melvin Calvin at the UC Berkeley Faculty Club after winning the Nobel Prize. Melvin Calvin (left) and Edwin McMillan. Photograph taken November 1961. XBD201410-01193.TIF -- Party for Melvin Calvin at the UC Berkeley Faculty Club after winning the Nobel Prize. Melvin Calvin (left) and Edwin McMillan. Photograph taken November 1961.

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XBD201410-01194.TIF -- Party for Melvin Calvin at the UC Berkeley Faculty Club after winning the Nobel Prize. Melvin Calvin (center) and Edwin McMillan (right). Photograph taken November 1961.

XBD201410-01195.TIF -- Party for Melvin Calvin at the UC Berkeley Faculty Club after winning the Nobel Prize. Photograph taken November 1961.

XBD201410-01196.TIF -- Party for Melvin Calvin at the UC Berkeley Faculty Club after winning the Nobel Prize. From left to right: Melvin Calvin, Mary Francis Singleton, Lyn DuBois, Gerald Crowley, Ted Belsky. Photograph taken November 1961.

XBD201410-01197.TIF -- Party for Melvin Calvin at the UC Berkeley Faculty Club after winning the Nobel Prize. From left to right: Melvin Calvin, Lyn DuBois, Gerald Crowley, Ted Belsky. Photograph taken November 1961.

XBD201410-01198.TIF -- Party for Melvin Calvin at the UC Berkeley Faculty Club after winning the Nobel Prize. Facing camera: Melvin Calvin (left) and Edwin McMillan (right). Photograph taken November 1961.

XBD201410-01199.TIF -- 184-inch cyclotron control room with unidentified individual. Photograph taken January 22, 1947. 184"-624.

XBD201411-01241.TIF -- John Clauser with quantum mechanics experiment. Published caption, "John Clauser with his contraption to test Bell's theorem at Berkeley, 1970s. (Courtesy John Clauser and Lawrence Berkeley National Laboratory)" Photograph taken November 7, 1975.XBB7511-8 XBD201411-01275.TIF -- Ernest Orlando Lawrence with Theodor Svedberg, Nobel Laureate in Chemestry at Gustav Werner Institute. Photograph taken May 14, 1946. Cooksey-70

XBD201411-01276.TIF -- Theodor Svedberg, Nobel Laureate in Chemistry at blackboard. Photograph taken May 14, 1946. Cooksey-708.

XBD201412-01300.TIF -- Machine shop, Bldg. 7, Old Town. Photograph taken September 4, 1953. Bldg.-970.

XBD201412-01301.TIF -- Machine shop, Bldg. 7, progress shot. Old Town. Photograph taken February 7, 1964. Bldg.-7533.

XBD201412-01302.TIF -- Machine shop, Bldg. 7, progress shot. Old Town. Photograph taken February 7, 1964. Bldg.-7534.

XBD201412-01303.TIF -- Machine shop, Bldg. 7, progress shot. Old Town. Photograph taken February 7, 1964. Bldg.-7535.

XBD201412-01304.TIF -- Machine shop, Bldg. 7, progress shot. Old Town. Photograph taken February 7, 1964. Bldg.-7536.

XBD201412-01305.TIF -- Bldg. 4. Old Town. Photograph taken July 29, 1946. Bldg.-128.

XBD201412-01306.TIF -- Bldg. 6, Chemistry Annex, excavation. Old Town. Photograph taken August 30, 1946. Bldg.-140.

XBD201412-01307.TIF -- Bldg. 5, Chemistry Annex, foundation. Old Town. Photograph taken September 6, 1946. Bldg.-147.

XBD201412-01308.TIF -- Bldg. 5, Chemistry Annex, foundation. Old Town. Photograph taken September 6, 1946. Bldg.-148.

XBD201412-01309.TIF -- Material for rock drain, Bldg. 6, Chemistry Annex. Old Town. Photograph taken October 3, 1946. Bldg.-187.

XBD201412-01310.TIF -- Rock drain, Bldg. 6, Chemistry Annex. Old Town. Photograph taken October 31, 1946. Bldg.-188.

XBD201412-01311.TIF -- Bldg. H, progress shot. Old Town. Photograph taken November 6, 1946. Bldg.-190.

XBD201412-01312.TIF -- Bldg. 4 renovation completed. Old Town. Photograph taken September

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19, 1955. Bldg.-1240.

XBD201412-01313.TIF -- Bldg. 7 exhaust system, blue room. Old Town. Photograph taken July 2, 1958. Health Pro.-604.

XBD201412-01314.TIF -- Bldg. 7, blue room. Old Town. Photograph taken July 2, 1958. Health Pro.-605.

XBD201412-01315.TIF -- Bldg. 7, blue room. Old Town. Photograph taken July 2, 1958. Health \mbox{Pro} -607

XBD201412-01316.TIF -- Bldg. 7, blue room. Old Town. Photograph taken July 2, 1958. Health Pro.-609.

XBD201412-01319.TIF -- View looking east from roof of Bldg. 6. March, 5, 1947. Misc.-251.

XBD201412-01320.TIF -- View looking east from Bldg. 6 to corp. yard. March, 5, 1947. Misc.-252 XBD201412-01321.TIF -- General view of parking area by gate office. 184-inch area. September 17,

XBD201412-01321.TIF -- General view of parking area by gate office. 184-inch area. September 17 1947. Misc.-267.

XBD201412-01323.TIF -- General view of 184-inch building area. Old Town in foreground. March 17, 1950. Misc.-559.

XBD201412-01324.TIF -- General view of 184-inch building area. Old Town in foreground. March 17, 1950. Misc.-560.

XBD201412-01325.TIF -- South end of 184-inch building area. March 17, 1950. Misc.-565.

XBD201412-01326.TIF -- Loading platform, rear Bldg. 4. April 11, 1951. Misc.-689.

XBD201412-01327.TIF -- Bldg. 5, Chem. series, main corridor. June 1, 1951. Misc.-697.

XBD201412-01328.TIF -- Rear Bldg. 4. Column servicing platform, room 203 cave. Chem. series, June 1, 1951. Misc.-705.

XBD201412-01329.TIF -- Crowded conditions, Chem. lab. bldg. Chem. series, June 5, 1951. Misc.-711.

XBD201412-01330.TIF -- Crowded conditions, main shop, Bldg. 7. Royal Elliot (white apron) in front. Chem. series, February 8, 1943. Shop-4.

XBD201412-01331.TIF -- Crowded conditions, main shop, Bldg. 7. Chem. series, February 8, 1943. Shop-5.

XBD201412-01332.TIF -- Xa tank door being worked on in shop. Chem. series, March 4, 1943. Shop-30.

XBD201412-01333.TIF -- Overview of Machine Shop. September 6, 1943. Shop-89.

XBD201502-00021.TIF -- Bevatron Shielding Experiment Blockhouse. Health Pro.-1144.

XBD201502-00022.TIF -- Cockroft-Walton Accelerator. Similar to Plate 3.7 in 'Lawrence and His Laboratory' by. J. L. Helbron and W. Seidel. Univ. California Press (1989).

XBD201503-00046.TIF -- Wide-angle view of the remodeled Bevatron shows extensive new shielding, including seven-foot-thick concrete roof and "igloo" at hub with Lawrence Radiation Laboratory Director Edwin McMillan, left and Bevatron Group Leader Edwin Lofgren. Photo taken Janu

 $XBD201504\hbox{-}00063.TIF$ -- Al Ghiorso and Glenn Seaborg at 104 Wheel. Photograph taken March 7, 1969. $XBB693\hbox{-}1744.$

 $XBD201504\hbox{-}00064.TIF$ -- Al Ghiorso and Glenn Seaborg at 104 Wheel. Photograph taken March 7, 1969. $XBB693\hbox{-}1746.$

XBD201504-00065.TIF -- Al Ghiorso at 104 Wheel. Photograph taken March 7, 1969. XBB693-1748.

XBD201504-00066.TIF -- Element 104 celebration with Al Ghiorso and associates. Photograph taken April 14, 1969. XBB694-2449.

XBD201504-00067.TIF -- Element 104 celebration with Al Ghiorso and associates. Photograph

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taken April 14, 1969. XBB694-2452.

XBD201504-00069.TIF -- First full energy beam through Super Hilac. Photograph taken April 20, 1972. XBB724-2111.

XBD201504-00070.TIF -- Stanley Thompson, associated with the discovery of element 101, 1958. Photograph taken April 24, 1972. XBB724-2226.

XBD201504-00071.TIF -- Visit to one of the chemistry labs in The Khlopin Radium Institute, Leningrad with V.M. Vdovenko, G. Tape, Glenn Seaborg. To the left of Vdovenko is a young scientist at the institute, Alec Rimsky-Korsakov, great-grandson of the composer. Photograph taken XBD201504-00072.TIF -- Visit to the Novovoronezh Nuclear Power Plant, Novovoronezh, May 27, 1963 with M.A. Borisov, I.F. Chepak, Glenn Seaborg, N.M Sinev, A.I. Belov, unidentified individual, G. Tape, and C. King. Photograph taken May 27, 1963. XBB779-8752.

XBD201504-00073.TIF -- Visit to Joint Institute for Nuclear Research at Dubna, May 28, 163 with I.D. Morokhov, G.N. Flerov. Glenn Seaborg, D.I. Blokhintsev, G. Tape, A. Zucker, Al Ghiorso, V.F. Gordeyev. Photograph taken September 12, 1977. XBB779-8753.

XBD201504-00074.TIF -- Lina Galtieri with physics group. Photograph taken July, 28 1977. XBB778-8075.

XBD201504-00075.TIF -- Dr. Edwin McMillan with mousetrap cigarette lighter atom smasher apparatus (Rube Goldberg inspired). Photograph taken March 21, 1974. XBD743-1775. See also XBB743-1774.

XBD201504-00080.TIF -- Luis Alvarez logbook, page 79, 1951. Shot at National Archives Office, San Bruno, California, September 28, 1993. XBB9309-06410.

XBD201504-00081.TIF - Luis Alvarez logbook, page 292, 1951. Shot at National Archives Office, San Bruno, California, September 28, 1993. XBB9309-06411.

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